

**Annual General Meeting**

The Annual General Meeting of the Shareholders of Bow Valley Industries Ltd. will be held in Calgary in the Mayfair Room of the Calgary Inn at 10:00 a.m., September 28, 1976.

**COVER PHOTO:**

The ODIN DRILL on location in the U.K. sector of the North Sea drilling the second Brae appraisal well, 16/7-4, about 2.7 miles southwest of the 16/7-3, in 340 feet of water, 150 miles east of Aberdeen.

## operational highlights

- In the U.K. Sector of the North Sea, the Brae appraisal well 16/7-3, drilled 3.7 miles southwest of the Brae discovery well, encountered an Upper Jurassic reservoir with 1,000 feet of continuous gross oil pay. A letter of intent was subsequently signed with Ashland Oil, Inc. providing for the recovery of all Bow Valley's past costs and for *non-recourse* financing of all Bow Valley's future costs until payout in exchange for half of Bow Valley's interest.
- In the Arabian Gulf, offshore Abu Dhabi, a fourth successful well was completed in the Arzanah field and the field development program approved. Production is expected to commence in January 1978.
- In the Mackenzie Delta, Sun Oil Company Limited completed Garry P-04 as a dual-zone oil and gas discovery well.
- In Alberta the Wandering River gas project, with a design capacity of 30 MMcf per day, was put on stream in May 1976.

## financial highlights

	1976	1975 (Restated)
Total Revenues . . . . .	\$103,328,000	\$93,941,000
Cash Flow From Operations . . . . .	\$ 7,587,000	\$ 9,764,000
Per Share . . . . .	\$ 1.58	\$ 2.05
Net Earnings . . . . .	\$ 975,000	\$ 2,857,000
Per Share . . . . .	08c	48c
Average Shares Outstanding . . . . .	4,794,668	4,771,822
Capital Expenditures . . . . .	\$ 24,820,000	\$20,718,000

Bow Valley Industries Ltd. is a resource-oriented company that was incorporated under the laws of the Province of Alberta in 1950. Bow Valley is engaged in oil and gas exploration and development in Canada and abroad. Bow Valley's services include oilwell drilling rigs, mining drills, aviation services, oilfield supply and construction, and pollution control. Bow Valley manufactures forestry and mining related equipment and heating and air conditioning units for domestic and commercial use.



The most significant development in fiscal 1976 was the success of the Brae appraisal well 16/7-3 and the subsequent arrangements made to finance Bow Valley's participation in the Brae field in the U.K. Sector of the North Sea.

The original discovery well at Brae encountered 500 feet of continuous gross oil and gas pay in an Upper Jurassic sandstone. The first appraisal well, the 16/7-3, was drilled 3.7 miles southwest of the discovery well, and on March 10, 1976, it was announced that the well had encountered an Upper Jurassic sandstone with 1,000 feet of continuous gross oil pay. Results from these two wells, both of which tested over 5,000 barrels of oil per day, plus interpretation from extensive seismic data, suggest that Brae could be one of the largest oil fields in the North Sea. Offshore fields of this magnitude, however, require enormous development costs. If the costs to develop a North Sea field of the possible size

of the Brae field are in the range of \$2 billion, which various industry sources have projected, then Bow Valley's 28 percent share of these costs could approach \$600 million. Your Board of Directors do not believe it is in the best interests of Bow Valley's shareholders to undertake a recourse debt of this magnitude in the North Sea.

After lengthy negotiations, it was announced on May 28, 1976, that a letter of intent had been signed with Ashland Oil, Inc., which provides for the acquisition by Ashland of one-half of Bow Valley's 28 percent interest in Licence No. P. 108 covering Blocks 16/3 and 16/7, which include the Brae field, and one-half of Bow Valley's 35 percent in Licence No. P. 222 covering Block 16/2, which is contiguous to Licence No. P. 108 and may include part of Brae. Consideration would be a payment by Ashland to Bow Valley of \$7,500,000 and a loan by Ashland to Bow Valley of \$7,500,000, the

\$15,000,000 representing a recovery by Bow Valley of all costs incurred on the licenses to the date of the letter of intent, and a further loan by Ashland of Bow Valley's estimated \$7,500,000 share of exploratory and appraisal drilling costs on the licences expected to be incurred from the date of the letter of intent and until the development stage is reached. In the event of development work being carried out, Ashland would also lend Bow Valley its share of these costs on the understanding that Ashland would be allowed to recover all loans out of a portion of Bow Valley's share of subsequent production income.

The arrangement is subject to the execution of a definitive agreement, the receipt of appropriate tax rulings, and the approval of the necessary government agencies. The non-recourse financing arrangements as contemplated in the letter of intent will allow Bow Valley to maintain a significant interest, completely

financed, in the licences. Bow Valley will be in the favourable position of having recovered all costs, having no further financial obligations, and having a substantial flow of income from the first day of production.

Of considerable interest at the present time is the drilling of the third well in the Brae field, the 16/7-4, which was spudded on July 4, 1976, approximately 2.7 miles south-southwest of the successful appraisal well 16/7-3. The 16/7-5, an appraisal well located 2.8 miles west of the discovery well, is expected to spud during August 1976. Both wells will be drilled to about 14,000 feet to test the Upper Jurassic sandstones.

Whereas the activity in the Brae area in fiscal 1976 dominated Bow Valley's oil and gas activities, there were certain other events during the year that are worthy of attention.

In the Arzanah field, offshore Abu Dhabi in the Arabian Gulf, a fourth successful appraisal well was completed on December 17, 1975. A contract for the engineering and design of the production facilities has been let, and it is estimated that by January 1978 this field should be producing about 25,000 barrels of oil per day. Bow Valley's share of this production will be 2,500 barrels of oil per day reducible to 1,250 barrels of oil per day if the Ruler exercises his option to acquire a 50 percent interest in the field at cost.

In the Mackenzie Delta, Sun Oil Company Limited successfully completed a significant dual-zone oil and gas well, the Garry P-04, on January 5, 1976. This well tested 7,920 barrels of oil per day and 31 MMcf of gas per day and was drilled on a geological structure that straddles the border of Bow Valley's Permit W-949 and Chevron's adjacent permit to the east. Bow Valley, through its arrangements with Sun, earned a small royalty interest in 1,100 acres on the Chevron permit, and Sun has agreed to drill a Garry appraisal well on Bow Valley's permit in the 1976-1977 winter drilling season.

In Alberta, there was an increase in gas production towards the end of the year with the new gathering systems at Wandering River officially dedicated on April 9, 1976, and gas production commencing in May. Wandering River is expected to achieve maximum rates of 30 MMcf per day with Bow Valley's share of this production averaging about 20 MMcf per day. Two small shallow gas fields were also placed on production at Gough Lake and Edgerton. These two fields are currently producing at about 7.5 MMcf per day and Bow Valley's share of this production is about 5.0 MMcf per day.

Although certain of Bow Valley's service and manufacturing divisions enjoyed increased revenues and profits, the majority of these activities were much less profitable than last year. The oil and gas well drilling divisions have been particularly successful due to higher oilfield activity while the heating equipment divisions prospered from increased housing starts in Alberta.

Decreased performances were particularly noticeable in the divisions involved in the manufacture and supply of machinery and equipment for the forest products, mining, and construction industries. Depressed markets in the forest products and mining industries and numerous labour disputes were the primary reasons for the lower earnings.

Although gross revenues reached \$103,328,000 in fiscal 1976 as compared to \$93,941,000 in fiscal 1975, net profit decreased to \$975,000 from \$2,857,000. Earnings per share decreased from 48 cents per share to 8 cents per share. Although immediate improvement is not seen in certain aspects of the manufacturing operations related to the forest products industry, there should be an improvement in oil and gas earnings with the connection to market of several gas fields in late 1976 and other smaller fields in 1977. Further, the \$15,000,000 payment from Ashland, which will be used to retire corporate debt, will significantly reduce interest costs.

During the year, three new Directors were added to the Board. Mr. James S. Graham, an industrialist from Vancouver, British Columbia; Mr. R. Guy Godbout, President of Les Industries Valcartier Inc., Quebec City, Quebec; and Major General Lord Michael Fitzalan Howard, KCVO, CB, CBE, MC, DL, Marshal of the Diplomatic Corps, London, England. These individuals have varied backgrounds and their experience and knowledge should be particularly helpful to Bow Valley.

Fiscal 1976 was a very satisfactory year for Bow Valley's oil and gas exploration and development division as well as the oilwell drilling divisions. The employees of these divisions are to be congratulated on the success of their operations. Other divisions of Bow Valley were not as successful in fiscal 1976, but the untiring efforts of these employees under adverse and difficult market conditions are acknowledged and very much appreciated by the Board. A summation of the year indicates that the goals of the Company are being achieved with the outstanding exploration successes and the future gives every indication that Bow Valley has an excellent opportunity to become a major Canadian independent oil and gas company.

D. K. Seaman  
President

August 16, 1976

**oil and gas  
exploration and development**



*Drilling operations in the Arzanah field,  
offshore Abu Dhabi in the Arabian Gulf.*

Bow Valley, through its exploration division, Bow Valley Exploration, conducts an extensive oil and gas exploration and development program in Canada and eight other countries around the world. Bow Valley Exploration is headquartered in Calgary and operates overseas through offices in London and Singapore.

## CANADIAN EXPLORATION



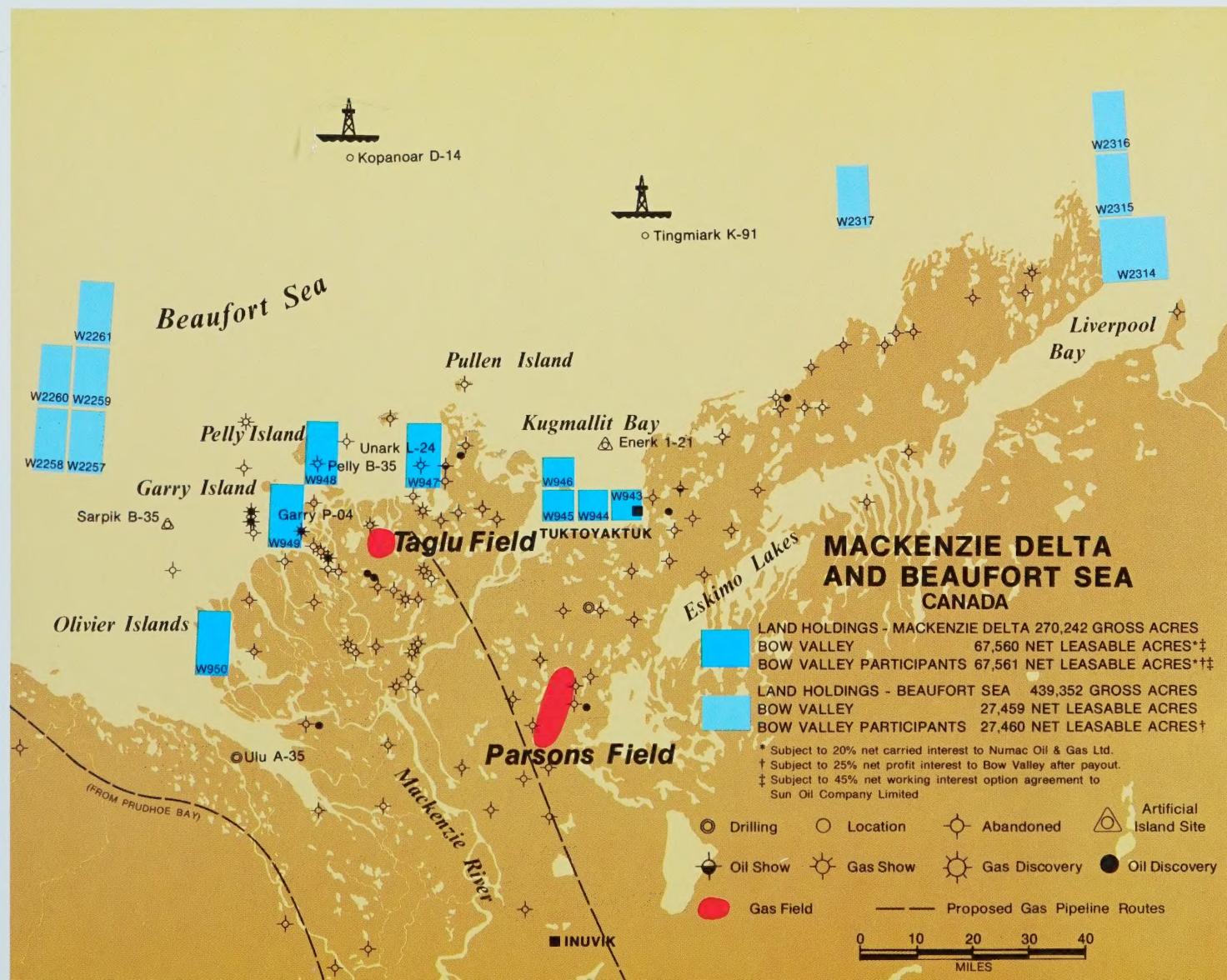
### MACKENZIE DELTA

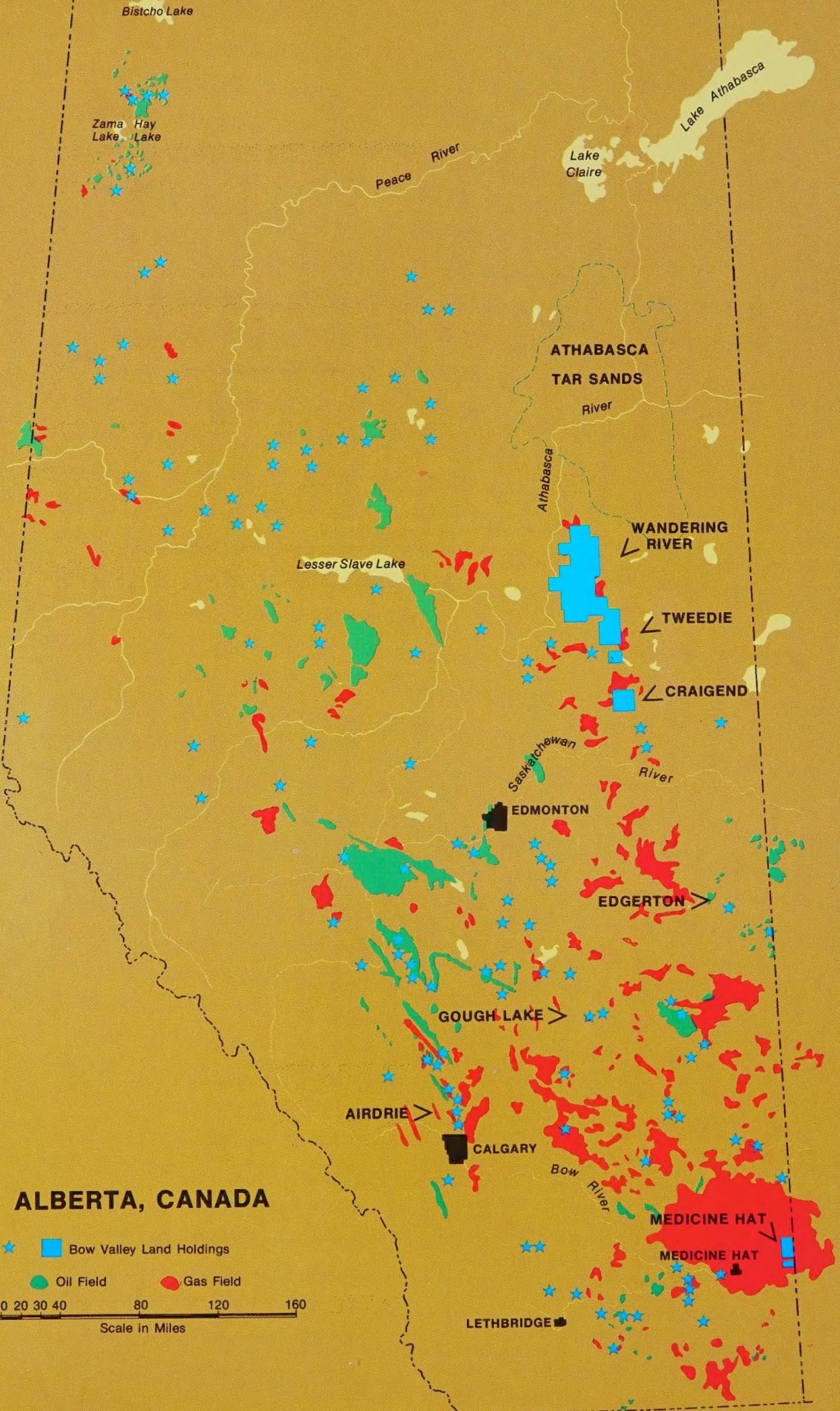
Bow Valley owns a 50 percent interest in eight permits comprising

270,242 acres in the Mackenzie Delta. In December 1973 Bow Valley and its partners in these permits entered into an agreement with Sun Oil Company Limited whereby Sun would drill three wells to earn a 45 percent interest in one permit and an option to drill a minimum of 12 wells to earn a 45 percent interest in all permits. Under this agreement Sun has drilled two wells: the first, Unark L-24, was spudded on September 24, 1974, and abandoned after testing non-commercial quantities of natural gas, and the second well, Pelly B-35, was spudded on October 5, 1974 and abandoned after testing non-commercial quantities of natural gas. Sun has recently completed 82 miles of seismic on both the Pelly and the

Unark anomalies and will drill the third commitment well on the Unark permit this fall.

In a separate agreement, Sun drilled a directional exploratory well, Garry P-04, on Permit W-949 to test a structure located both on this permit and on an adjacent permit to the east held by Chevron Standard Limited. The well was drilled to 11,000 feet and completed as an oil and gas discovery in December 1975. Results of extensive testing indicate a total net hydrocarbon-bearing section of 330 feet with gas flow rates of 14 MMcf per day and 17 MMcf per day from two different zones; an oil zone was tested over a short flow period at a rate of 7,920 barrels per day. Bow Valley earned a small overriding





royalty interest in 1,100 acres on the Chevron permit tested by this well, and Sun has agreed to drill a Garry appraisal well on Bow Valley's Permit W-949 during the forthcoming winter drilling season.

In addition to the Mackenzie Delta acreage, Bow Valley holds a 12½ percent interest in nine permits consisting of 439,352 acres in the Beaufort Sea. This area will warrant considerable attention this summer as industry will be actively exploring this area for the first time. Two drill ships commenced drilling in early August 1976 at locations approximately 60 miles north of Bow Valley's closest Beaufort Sea permits.

#### ARCTIC ISLANDS

Bow Valley has a 2.03 percent interest in Panarctic Oils Ltd. This represents a minor dilution from last year as Bow Valley declined to participate in the last share subscriptions by Panarctic.

Panarctic had a very active winter drilling season during which it successfully extended the gas fields at Drake Point and Hecla on Melville Island and discovered a new gas field at Jackson Bay off Ellef Ringes Island. An oil discovery at Bent Horn on Cameron Island was also extended by a one-mile stepout after one well, drilled six miles away from the original discovery well, was abandoned. Although estimates of oil reserves in the Arctic have not been published, Panarctic now estimates its marketable gas reserves in this area at 15 trillion cubic feet.

#### WESTERN CANADA

During fiscal 1976, Bow Valley participated in the drilling of 111 wells in western Canada.

In the Wandering River area of northeastern Alberta, an additional 25 wells were drilled during fiscal 1976 of which 20 were completed as gas wells. Bow Valley now has a total of 87 gas wells in the area and in May of 1976 the initial gas gathering system and compression facilities were completed. The field should achieve maximum production of about 30 MMcf per day and Bow

Valley's share will be about 20 MMcf per day. A long-term gas purchase contract has been executed with Sun Oil Company Limited that calls for an initial wellhead price of \$0.72 per Mcf plus an export differential of approximately \$0.23 per Mcf. Bow Valley is the operator and owns an average interest of 67 percent in the 600,000-acre project.

During February 1976, two shallow gas fields in Alberta were placed on production at Gough Lake and Edgerton. The two fields are producing about 7.5 MMcf per day and Bow Valley's share is 5.0 MMcf per day. Bow Valley owns a 45 percent interest in Gough Lake and a 100 percent interest in Edgerton; wellhead prices are \$0.90 and \$1.12, respectively.

Bow Valley has a major interest in a 40,640-acre shallow gas project in the Medicine Hat area of southeastern Alberta. The greater part of the development program was completed in fiscal 1975; however, since that date an additional 47 wells have been completed. Bow Valley now owns a 50 percent working interest in 88 wells and approximately a 10 percent royalty interest in the remaining 125 wells convertible to a 50 percent working interest after payout. The field is currently producing gas at about 20 MMcf per day at an average wellhead price of \$1.22 per Mcf. Bow Valley's share of the production is about 5 MMcf per day.

At the present time it is estimated that an additional eight smaller gas fields will be brought on stream in fiscal 1977 and should make a significant contribution to Bow Valley's gas production.

#### INTERNATIONAL EXPLORATION



#### UNITED KINGDOM

In the U.K. Sector of the North Sea, significant activity occurred in late

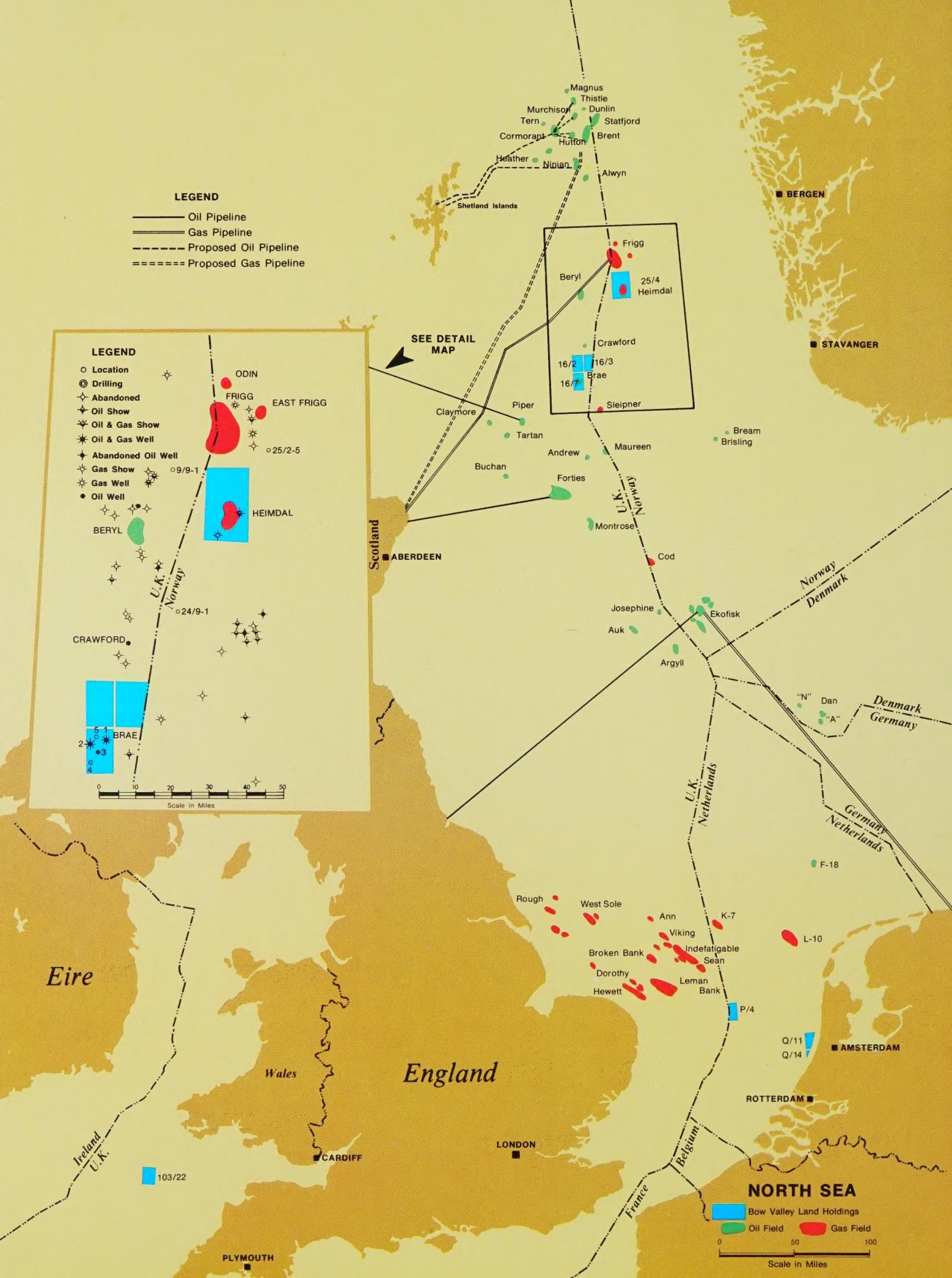
fiscal 1975 and in fiscal 1976 on Licence No. P. 108 which covers Blocks 16/7 and 16/3 and Licence No. P. 222 which covers Block 16/2.

On July 11, 1975, an exploratory well, the 16/7-2, was spudded 4.7 miles west of the Brae discovery well to test a separate structure. The well reached a total depth of 7,997 feet and tested oil at a flow rate of 4,023 barrels per day from a Paleocene sandstone at a depth of approximately 6,000 feet. Gas was also tested at substantial rates from a separate sand in the Paleocene sequence.

On September 18, 1975, the National Coal Board exercised its option to acquire at cost, for cash, a 20 percent interest in Blocks 16/3 and 16/7. This reduced Bow Valley's interest in these two blocks from 35 percent to 28 percent. The National Coal Board has no option on Bow Valley's Block 16/2 and Bow Valley's interest remains at 35 percent. The interest of the National Coal Board is now held by the newly-formed British National Oil Corporation.

On October 8, 1975, a Brae appraisal well, the 16/7-3, was spudded in 340 feet of water approximately 3.7 miles southwest of the 16/7-1 discovery well. On March 10, 1976, it was announced that the well had reached a total depth of 13,655 feet and had encountered 1,000 feet of continuous gross oil pay in an Upper Jurassic sandstone. Four production tests were taken over the pay interval and yielded a combined flow of 14,000 barrels of oil per day with a gas-oil ratio of 1,600 cubic feet per barrel. By way of comparison the Brae discovery well 16/7-1, announced on May 5, 1975, had flow rates from seven production tests over the pay interval that yielded a combined flow of 22,000 barrels per day with a gas-oil ratio of 3,000 cubic feet per barrel in the lower part of the pay zone and 7,000 cubic feet in the top part of the zone from 500 feet of continuous gross oil and gas pay in an Upper Jurassic sandstone.

On May 28, 1976, it was announced that a letter of intent had been signed



with Ashland Oil, Inc. The substance of the letter and the resulting effects to Bow Valley are summarized as follows:

- 1) Bow Valley would assign to Ashland half of its 28 percent interest in Licence No. P. 108, which includes the Brae field, and a 35 percent interest in Licence No. P. 222, which is contiguous to Licence No. P. 108 and may include a part of Brae.
- 2) Ashland would pay Bow Valley \$7,500,000 and loan Bow Valley an additional \$7,500,000, representing the recovery of all Bow Valley costs incurred to date.
- 3) Ashland would loan to Bow Valley an additional \$7,500,000 to pay for Bow Valley's share of estimated future exploratory and appraisal drilling on the licences until the development stage is reached.
- 4) If it is agreed to develop any discovery on the licences, Ashland would further loan Bow Valley its share of any development costs, including installation of production platforms and transportation facilities, and would continue to loan Bow Valley its share of any subsequent exploratory and appraisal drilling costs until Ashland has recovered all its loans.
- 5) If agreement is not reached to develop any discovery on the licences, Ashland would return the assigned interests to Bow Valley without compensation to Ashland.
- 6) All loans made by Ashland to Bow Valley are on a *non-recourse* basis repayable only out of production from the licences. Upon commencement of production, Ashland would receive 70 percent of Bow Valley's 14 percent share of net proceeds from production and Bow Valley would receive 30 percent until Ashland has recovered all monies

loaned to Bow Valley. Thereafter, the entire proceeds from the 14 percent will be for Bow Valley's account.

The agreement is subject to the execution of a definitive agreement, the receipt of appropriate tax rulings, and the approval of the necessary government agencies. Subsequently, it was announced that The Louisiana Land and Exploration Company had entered into an agreement with Ashland Oil, Inc. whereby The Louisiana Land would acquire 45 percent of Ashland's participation in the Brae field by paying 45 percent of Ashland's obligations.

Under the terms of the Licence No. P. 108, 50 percent of the original area of Blocks 16/3 and 16/7 was mandatorily relinquished by the group on June 8, 1976.

On July 4, 1976, another Brae appraisal well, the 16/7-4, was spudded approximately 2.7 miles southwest of the 16/7-3. A fourth Brae appraisal well, the 16/7-5, to be located 2.8 miles west of the discovery well 16/7-1, should spud in August 1976. Both wells will be drilled to about 14,000 feet to test the Upper Jurassic sandstones.

In Block 21/7 in the U.K. Sector of the North Sea, Bow Valley participated in the drilling of a 10,600-foot test to earn a 21.5 percent interest in the block. The well, drilled with the ODIN DRILL, was left dry and abandoned on May 14, 1976.

In the U.K. Sector of the Celtic Sea, Bow Valley holds an 8.33 percent interest in Block 103/22. Seismic interpretation of this block has indicated an anomaly that extends into Amoco's adjoining Block 103/21. On June 13, 1976, Amoco spudded an exploratory well on its Block which was left dry and abandoned on July 26, 1976 and the Bow Valley group has the option to make a dry-hole contribution to the well.

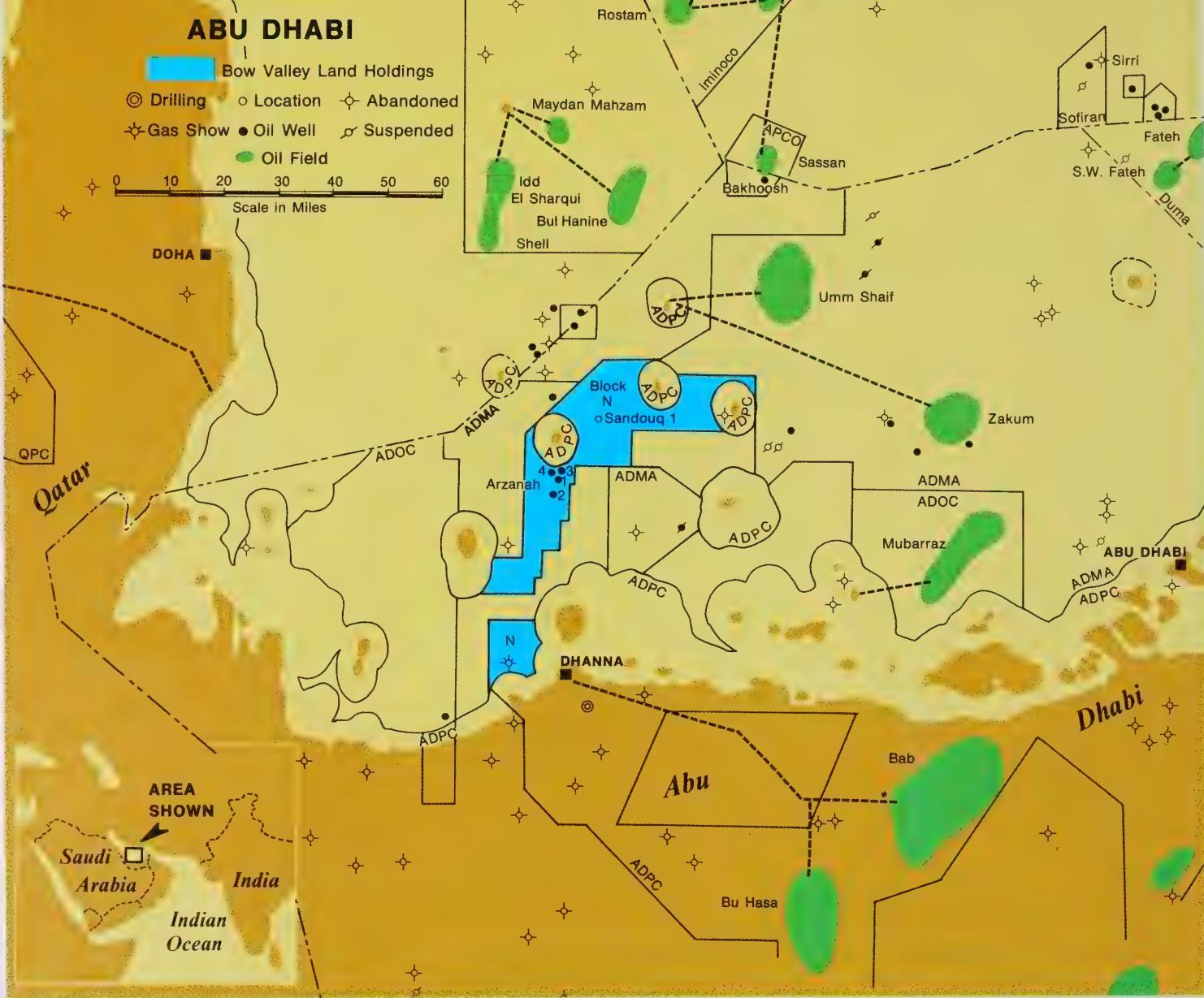
Bow Valley holds an equal share in a four-company group formed in 1974 for purposes of applying for new acreage to be offered by the U.K. government in the fifth round of bids in the U.K. Sector of the North Sea. A formal request for tenders has been announced by the Government with tenders closing October 5, 1976. The Department of Energy has stated that the British National Oil Corporation will have and pay for a 51 percent working interest in all future licences. A detailed interpretation of more than 10,000 miles of seismic in the area of interest has been completed and will provide the basis for the selection of blocks.



## NORWAY

In the Norwegian Sector of the North Sea, Bow Valley holds an eight percent working interest in the Heimdal gas and condensate field in Block 25/4 about 20 miles south of the major Frigg gas field. Extensive evaluation studies have been conducted on Heimdal since its discovery in 1973, and it now appears that additional seismic and possible appraisal drilling may be necessary to more accurately determine the reserves of this field before commencing the development phase.

A Heimdal gas purchase contract has been signed with the British Gas Corporation, and it is contemplated that Heimdal gas will flow through the Frigg field pipeline system to Scotland for delivery to the British Gas Corporation. Export permission from the Norwegian government will be requested for the sale to the British Gas Corporation as soon as the group has completed its current evaluation programs. Bow Valley expects the field to be on stream during 1981-1982.



## NETHERLANDS

In the Dutch sector of the North Sea, Bow Valley has a 6.5 percent interest in Block Q/11, a 22 percent interest in Block Q/14, and a 9.89 percent interest in Block P/4. In Block Q/11, a 156-mile seismic survey was completed in September 1975. Processing of the data was completed in December and, if drillable structures are indicated by the interpretation now in progress, a well may be drilled in 1977.



## ABU DHABI

In the Arabian Gulf offshore Abu Dhabi, a fourth well was completed in the Arzanah oil field as a successful Jurassic appraisal well on December 17, 1975. The well tested oil from two zones at 5,534 barrels of oil per day and 4,768 barrels of oil per day and showed better flow characteristics than the earlier wells. The development of the Arzanah field is now underway and includes the drilling and completion of two additional development wells and the workover of the first four wells. The engineering and design of the

production facilities has been let. This field is expected to be on stream by January 1978 at an initial rate of 25,000 barrels of oil per day. Bow Valley has a 10 percent interest in the field reducible to a 5 percent interest if the Ruler exercises his option to acquire a 50 percent interest in the field at cost. Project financing on a limited recourse basis for its share has been arranged by Bow Valley.

In addition to the Arzanah development, an exploratory test on the Abu Dhabi concession will be drilled in the near future about nine miles east of Arzanah Island on a separate structure.

## Mediterranean Sea



### INDONESIA

Bow Valley had a 30 percent interest in a Technical Assistance Contract in the Palembang Basin of southern Sumatra. A number of oilwells were successfully drilled in the area; however, reserves discovered were considered insufficient to warrant commercial development, and it was decided to surrender this acreage effective July 1, 1976. Bow Valley's office in Jakarta, Indonesia, has been moved to Singapore.



### VIET NAM

Offshore Viet Nam, Bow Valley was the technical operator for a four-company group that was awarded two offshore blocks in July 1973. During 1974, two other partners were added to the group and a 4,000-mile marine seismic program was undertaken which subsequently confirmed the existence of several drillable anomalies.

A four-well exploratory drilling program was to have commenced in July 1975; however, the fall of the Republic of Viet Nam caused a suspension of all operations. While the government of the Democratic Republic of Viet Nam subsequently declared all previous offshore concessions null and void, a Bow Valley representative was invited to visit Hanoi in November 1975 for purposes of renewing discussions relating to the exploration and development of Bow Valley's previous blocks offshore Viet Nam. These negotiations are continuing.



### MALDIVE ISLANDS

In the Maldives Islands, located off the southwestern coast of India, Bow Valley has a 3.94 percent interest in one concession and a 2.19 percent interest in another. There is a total of 20,855,680 acres in both concessions. The first well in the Islands was drilled to 7,289 feet in February 1976 and was abandoned after encountering volcanic rocks. Drilling results and seismic data in both concessions are currently being evaluated.



### EGYPT

Bow Valley owns a 20 percent interest in a 1,111,968-acre concession located east of Cairo. The concession agreement calls for a three-year expenditure commitment of \$6,000,000 which includes the drilling of three wells. Spudding of the first exploratory well, with Santa Fe Rig #69, has been scheduled for September 1976 to test Cretaceous and Jurassic sections to a depth of 12,500 feet. Approximately 800 miles of seismic data was acquired over the western portion of the concession during 1975-1976.

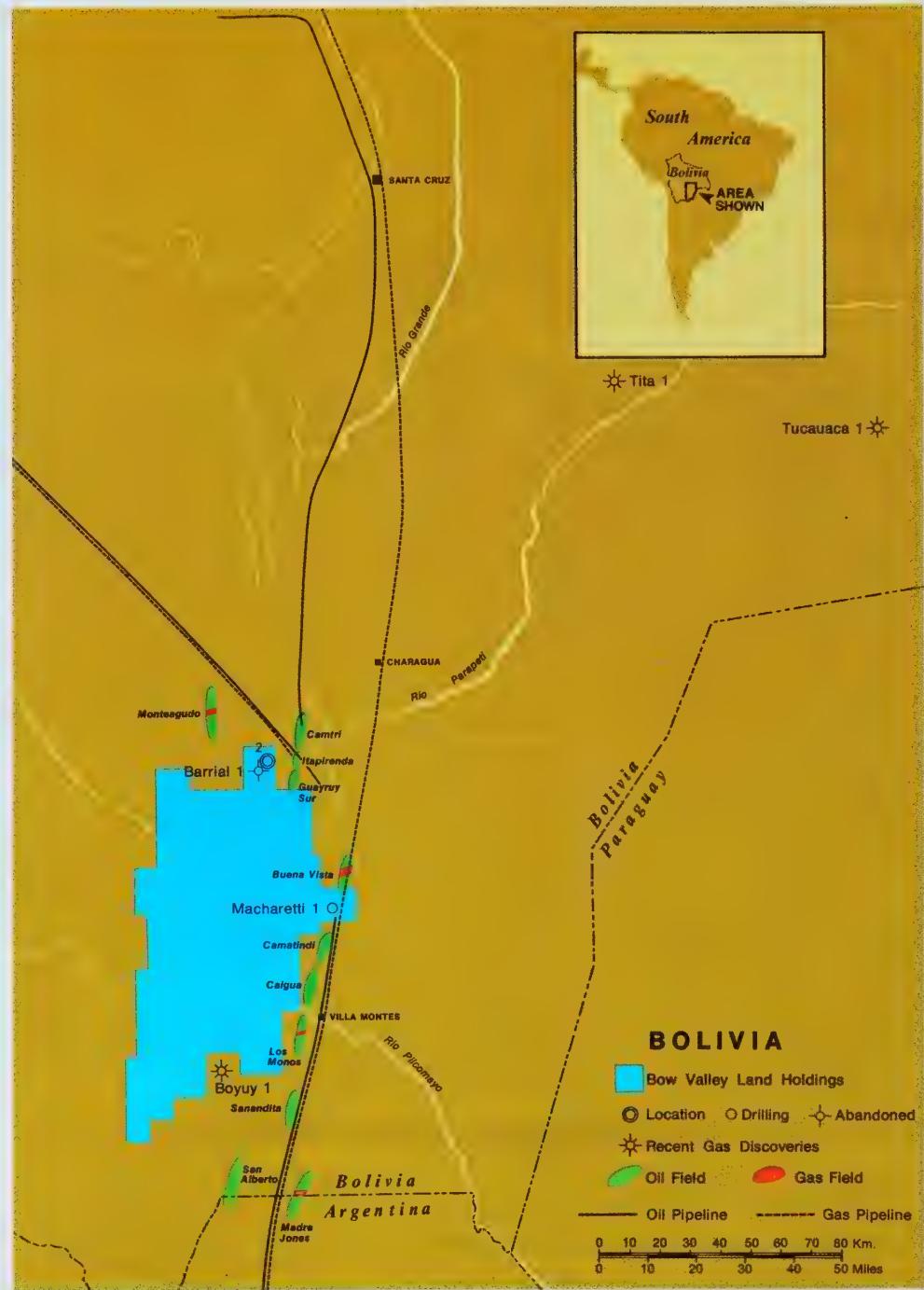


## BOLIVIA

On September 17, 1975, a 2,637,800-acre contract in the foothills of Bolivia was awarded to a joint venture in which Bow Valley is a 25 percent participant. The acreage is in the productive Subandean Fold Belt 200 miles south of Santa Cruz. The contract calls for an initial expenditure of \$4,000,000 over three years, which includes the drilling of three wells within 18 months of the execution date of the contract.

The first well, Barrial #1, a Cretaceous and Devonian test, was drilled to 7,000 feet and left dry and abandoned on March 9.

The second well, Macharetti #1, spudded on March 22. This well encountered mechanical difficulties but now has resumed drilling towards its target depth of 8,200 feet.



Drilling operations in the foothills of Bolivia.



**SUMMARY OF OIL AND GAS ACREAGE AS OF MAY 31, 1976**  
**DEVELOPED AND UNDEVELOPED**

Location	Type of Ownership	Types of Interests					
		Working Interest (1)		Royalty Interest (2)		Other Interests (3)	
		Gross Acres	Net Acres	Gross Acres	Net Acres	Gross Acres	Net Acres
CANADA							
1. Alberta	Leases . . . . .	1,277,985	672,948	379,565	11,414	257,809	19,349
	Petroleum & Natural Gas Reservations . . . . .	33,920	10,732	42,240	1,267	28,480	3,312
	Petroleum & Natural Gas Permits . . . . .	19,522	12,964	640	10	—	—
	Drilling Reservations. . . . .	72,640	28,677	6,400	582	—	—
	Natural Gas Licences . . . . .	379,460	168,484	—	—	—	—
2. Atlantic East Coast	Exploratory Permits . . . . .	797,325	59,163*	—	—	—	—
3. Arctic Islands	Exploratory Permits (4) . . . . .	2,135,202	85,358*	348,599	523*	738,571	5,335*
4. Beaufort Sea	Exploratory Permits . . . . .	439,352	27,459*	—	—	439,352	6,865*
5. British Columbia	Leases . . . . .	13,859	2,754	—	—	12,927	1,408
6. Mackenzie Delta	Exploratory Permits (5) . . . . .	270,242	67,560*	—	—	270,242	16,890*
7. Saskatchewan	Leases . . . . .	12,443	7,552	3,576	508	10,936	410
8. Yukon-Northwest Territories	Exploratory Permits . . . . .	96,404	24,101*	270,474	1,048*	—	—
	TOTAL CANADA . . . . .	5,548,354	1,167,752	1,051,494	15,352	1,758,317	53,569
FOREIGN							
1. Abu Dhabi	Concession Area . . . . .	388,195	38,820	—	—	—	—
2. Bolivia	Service Contract . . . . .	2,600,000	650,000	—	—	—	—
3. Egypt	Concession Area . . . . .	1,111,968	222,394	—	—	—	—
4. Indonesia	Technical Assistance Contract Area . . . . .	67,753	20,326	—	—	—	—
5. Maldives Islands	Petroleum Exploration Licences . . . . .	20,855,680	714,706	—	—	—	—
6. Netherlands	Exploration Licences . . . . .	86,016	7,064	—	—	—	—
7. Norway	Production Licence . . . . .	129,480	17,264	—	—	—	—
8. United Kingdom	Licences . . . . .	281,869	74,087	—	—	—	—
	TOTAL FOREIGN . . . . .	25,520,961	1,744,661	—	—	—	—
	TOTAL WORLD . . . . .	31,069,315	2,912,413	1,051,494	15,352	1,758,317	53,569

(1) Gross acres represent the total of the acreage in which Bow Valley has varying working interests. Net acres represent Bow Valley's interest in the gross acres.

(2) Gross acres represent the total of the acreage in which Bow Valley has varying royalty interests. Net acres represent Bow Valley's interest in the gross acres.

(3) Gross acres represent the total of the acreage in which Bow Valley has varying net profit and reversionary interests. Net acres represent Bow Valley's interest in the gross acres.

(4) Excluding acreage owned by Panarctic. As of December 31st, 1975, Panarctic held working interests in 70,833,639 gross acres and 48,609,728 net acres. Bow Valley holds a 2.03 percent interest in Panarctic.

(5) Subject to 45 percent working interest option agreement to Sun Oil Company Limited.

\* These figures have been adjusted by a reduction of 50 percent to reflect the revocation of Oil and Gas Land Order 1.1961 effective April 15, 1970.

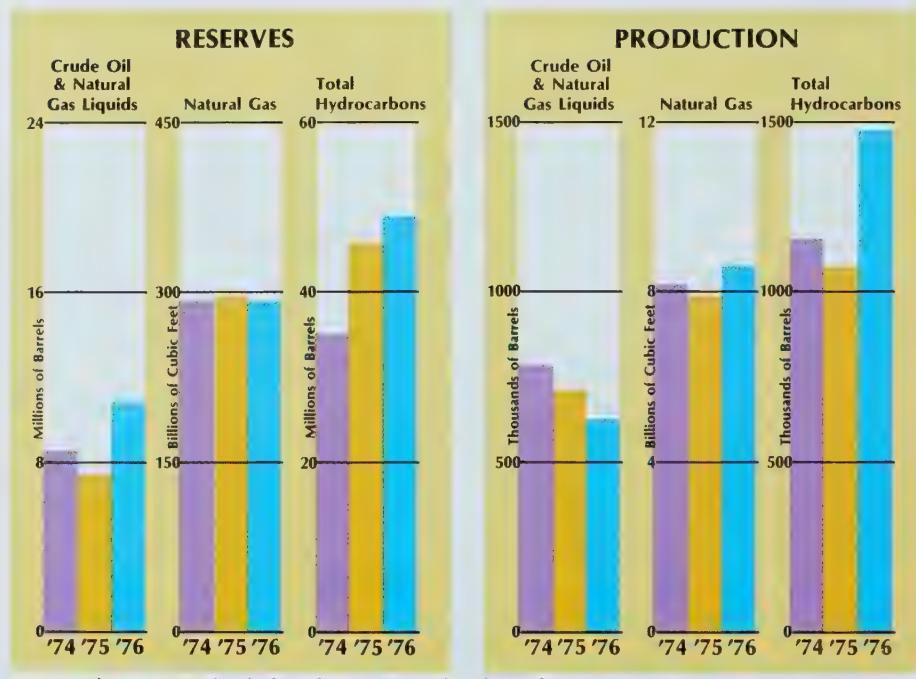
## OPERATIONS

All of Bow Valley's production and proven reserve figures are stated in gross units as future royalty rates of the various Canadian provinces are difficult to estimate due to variations of selling prices, capital expenditures, and other factors. The crude oil and natural gas liquids reserve figure includes, for the first time, proven reserves for the Arzanah field in Abu Dhabi. Only 50 percent of Bow Valley's 10 percent interest in these reserves have been taken into consideration on the assumption that the Ruler, who approved the development scheme for the Arzanah field on June 28, 1976, will exercise his option to acquire a 50 percent interest in the field. Petroleum discovered at Brae, Heimdal, in the Mackenzie Delta and by Panarctic are excluded until further evaluation programs have been completed.

In fiscal 1976, Bow Valley's petroleum production was 634,061 barrels of crude oil and natural gas liquids, or an average of 1,732 barrels per day, and 8.675 billion cubic feet of gas, or an average of 23,704 Mcf per day. Compared to fiscal 1975, average daily oil production was down 13 percent while average daily gas production was up 11 percent. The decrease in oil production results from both the natural decline in



*New gas gathering facilities at Wandering River in northeastern Alberta.*

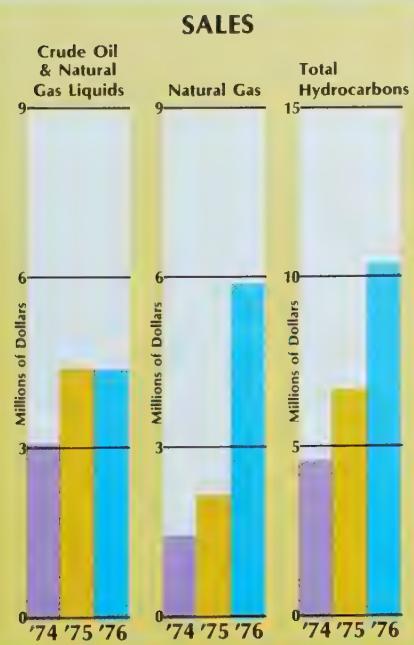


Canadian reserves and temporarily reduced oil allowables as Canada cut back exports to the United States. This export market will be replaced by the new oil pipeline to Montreal, which is now delivering crude. The increase in gas production came from new Alberta gas fields connected during the year.

During fiscal 1976, Bow Valley, excluding wells drilled by Panarctic Oils Ltd., participated in drilling 118 gross wells, including 7 overseas. Of the 118 gross wells drilled, 90 gross wells were completed as oil or gas wells for a 77 percent success ratio.

As at May 31, 1976, independent consultants estimated that Bow Valley had proven reserves of 10,861,000 barrels of crude oil and natural gas liquids and 291.5 billion cubic feet of gas. Comparative figures as at May 31, 1975 were 7,578,000 barrels of crude oil and natural gas liquids and 297.4 billion cubic feet of natural gas.

During fiscal 1976, Bow Valley's capital expenditures on oil and gas exploration and development were \$18,470,000 compared to \$15,149,000 in fiscal 1975.



### Exploratory Wells Drilled

Fiscal Year Ended May 31	Oil Wells		Gas Wells		Dry Holes	
	Gross	Net	Gross	Net	Gross	Net
1974	6	1.17	17	7.56	24	6.48
1975	5	1.06	18	5.22	18	5.77
1976	2	0.53	18	8.01	17	4.74
Total	13	2.76	53	20.79	59	16.99

### Development Wells Drilled

Fiscal Year Ended May 31	Oil Wells		Gas Wells		Dry Holes	
	Gross	Net	Gross	Net	Gross	Net
1974	3	1.04	24	13.19	3	1.55
1975	5	1.35	152	76.82	6	1.59
1976	4	1.60	66	28.28	11	5.58
Total	12	3.99	242	118.29	20	8.72



New gas compressor facilities at Wandering River in northeastern Alberta.



**service and supply to the  
natural resource industries**

Bow Valley's oil and gas contract drilling divisions enjoyed a most active and profitable year. This was occasioned by an efficient operation and a better economic climate resulting from a satisfactory conclusion to the dispute over the sharing of resource revenues by the Federal and Provincial governments. In fiscal 1976, in western Canada, Hi-Tower Drilling and Sedco Drilling completed 720 wells for a total of 2,206,328 feet representing approximately 16 percent of the total footage drilled by the entire industry. This is a substantial improvement over the prior year when 567 wells accumulated 1,807,133 feet of drilling. Hi-Tower and Sedco operate 35 rigs with depth capacities ranging up to 20,000 feet.

The Commonwealth Hi-Tower Arctic Joint Venture (in which Bow Valley has a 50 percent interest) showed a modest increase in performance in fiscal 1976 as there

continues to be some hesitancy on the part of oil companies to embark on extensive exploration programs in the Arctic. In fiscal 1976, Commonwealth Hi-Tower drilled 5 wells for 57,087 feet as compared to 9 wells for 65,070 feet in fiscal 1975. During the year, the joint venture acquired the one rig owned and operated by Drillarctic and Commonwealth Hi-Tower now operates 4 rigs in the Arctic with depth capacities ranging from 6,000 to 18,000 feet.

The ODIN DRILL had an active and a profitable year in the North Sea and was on location for 350 days in fiscal 1976. At the present time the ODIN is drilling the Brae appraisal well 16/7-4 in the United Kingdom Sector of the North Sea. Bow Valley has a 20 percent interest in the self-propelled semi-submersible rig which has a drilling capacity of 25,000 feet.

Connors Drilling Ltd. was able to increase gross revenues slightly during fiscal 1976 despite a reduction in mining exploration activity. The increased revenue, however, was more than offset by higher costs with resulting reduced profits. Depressed mineral prices continue to adversely affect the mining industry and all related support functions are operating on a very competitive basis. Minimum prices for copper and other base minerals is largely responsible for the lower activity while in British Columbia and Quebec strikes have further aggravated operational results.



Hi-Tower rig and crew on location in southern Alberta.

*Bow Helicopters on a powerline installation contract in the lower mainland of British Columbia.*



In fiscal 1976, Connors drilled 934,298 feet as compared to 1,163,919 feet in fiscal 1975. Connors operates 125 underground and 162 surface drills throughout western Canada, Quebec, and the western United States and is considered one of the largest diamond drilling contractors in North America.

Bow Helicopters Ltd. in fiscal 1976 was unable to pass on cost escalations to customers and, although gross revenue approximated that of last year, margins decreased considerably. The helicopter market is quite competitive which makes it very difficult to establish any rate increases. Bow Helicopters operates 15 helicopters throughout western, central, and northern Canada and major activities consist of support services for the petroleum and mining industries as well as forestry work and helicopter skiing.

*Resolute Construction operation in the Ft. McMurray area of northeastern Alberta.*



Resolute Construction Ltd. during fiscal 1976 was actively engaged in gas and water line installation and road construction in the oilfield areas of Alberta. A considerable amount of Resolute's work in fiscal 1976 was for Bow Valley Exploration while other contracts approached the record profit levels attained in fiscal 1975.

Wonderly & Kershaw Petrochemical Services Ltd. had a substantial reduction in fiscal 1976 revenue and profit due to the loss of three plant maintenance contracts.

The anticipated development of processing industries in the petrochemical field in Alberta and the related benefits to Resolute and Wonderly & Kershaw did not occur in fiscal 1976.

Cardwell Supply had a satisfactory performance in fiscal 1976 as its operations benefited directly from increased drilling activity in the western provinces and in Alberta in particular. Whereas fiscal 1976 results did not achieve the record-breaking levels of fiscal 1975, it should be noted that the prior year's

profits included a large volume of goods that were in short supply and earned an unusually high mark-up. Cardwell operates from four stores in Alberta and one in northeast British Columbia.

Narwhal Arctic Services, a limited partnership in which Bow Valley holds a 60 percent interest, has had a substantial decrease in activity at its supply depot in Resolute Bay in the Arctic Islands. There has been an appreciable slowdown in exploration for oil and gas in the Arctic Islands pending acceptance by the oil industry of the Federal government's new Canada land regulations.

Western Research & Development Ltd., Bow Valley's environmental control subsidiary, experienced a dramatically reduced consulting market in fiscal 1976 and the available work was very competitively bid. Western R&D was also burdened with a heavy overhead cost which was not readily adjustable without damaging the company's ability to provide a full and complete service to customers.

Digitech Ltd. is a fully-integrated exploration data processing company and is eleven percent owned by Bow Valley. In their most recent interim report to shareholders, Digitech recorded a profit of \$96,266 for the nine months ended March 31st, 1976.



*Connors Drilling Ltd. on a core hole contract in central British Columbia.*

A large industrial electric furnace is shown in operation. The furnace is a massive, cylindrical metal structure with a glowing orange-red interior where molten metal is being heated. A worker wearing a red patterned shirt and a hard hat is visible on the left side, looking towards the furnace. A large circular gauge or control device is mounted on the side of the furnace. The background shows a workshop environment with various equipment and structures.

manufacture and supply  
of machinery and equipment  
to the forest products, mining  
and construction industries

*Electric furnace operation at Mainland's  
Vancouver foundry.*

Unfavourable market conditions in the forest products and mining industries as well as lengthy labour disputes were primarily responsible for Mainland Foundry & Engineering Ltd. reporting a substantial loss for fiscal 1976. Mainland was able to maintain its sales volume by establishing new lines of business however gross margins were substantially less than anticipated while overhead continued to rise.

Mainland carries on the business of design and manufacture of machinery for the forest products, mining, and construction industries and custom fabricating and foundry castings. Facilities include 160,000 square feet of plant and office buildings in Vancouver, as well as seven warehouses across Canada. On December 1st, 1975 the assets of Chipper Machine and Engineering Corporation of Portland, Oregon were acquired to further complement Mainland's operations in the northwest United States.

Elworthy & Company Ltd. experienced a small loss for fiscal 1976 as its electrical supply and repair business was adversely affected by the slowdown in sawmill activity in British Columbia.

The Wesdrill Equipment division of Bow Valley was able to maintain its sales level in fiscal 1976 despite a reduction in mining exploration activity. Intense competition however eliminated any material mark-up in selling prices and Wesdrill had to absorb a substantial increase in costs and show a loss position for the year. Wesdrill manufactures diamond bits and related equipment for the mineral exploration industry at two plants, located in Vancouver, British Columbia and Phoenix, Arizona.

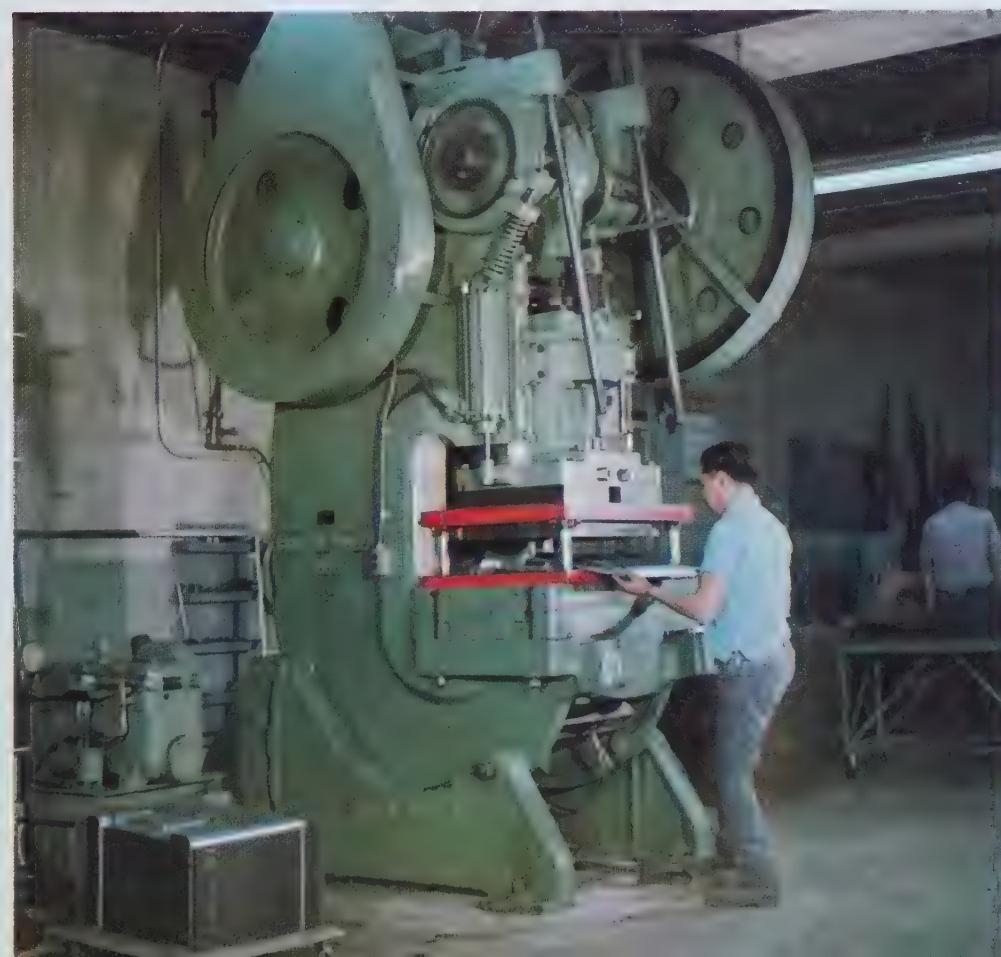
Bow Valley's Flame-Master division had a very satisfactory fiscal 1976 both in gross sales and net profit. Increased housing starts in Alberta were primarily responsible for the

increased performance. Flame-Master manufactures residential heating and air conditioning equipment in a 55,000 square foot plant in Edmonton.

The Climate-Master division, which produces industrial and commercial heating and air conditioning equipment, added a Toronto manufacturing facility to match the 13,000 square foot plant already in operation in Edmonton. Both plants operated at less than capacity however as commercial construction failed to reach anticipated levels.

Western Rock Bit Manufacturing Company Limited fabricates drilling bits and other industrial products for use in the petroleum industry of western Canada. Bow Valley has a 10.4 percent equity in Western Rock Bit which continues to report profits at a very satisfactory level.

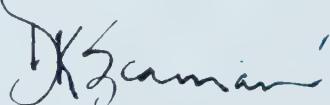
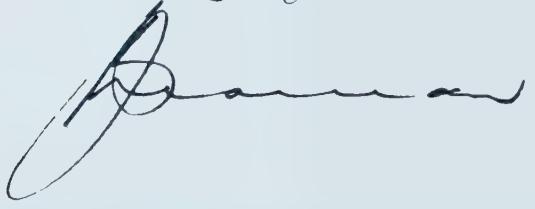
Furnace manufacturing in Flamemaster's Edmonton plant.



Bow Valley Industries Ltd. and Subsidiary Companies

**CONSOLIDATED BALANCE SHEET**

May 31, 1976 and 1975 (Canadian Dollars)

ASSETS	1976	1975
<b>Current Assets</b>		(restated)
Accounts receivable —		
Trade .....	\$ 16,658,460	\$ 17,594,532
Other .....	1,707,578	977,410
Inventories (Note 3) .....	15,692,988	14,504,857
Prepaid expenses .....	813,908	1,072,796
	34,872,934	34,149,595
<b>Capital assets, at cost (Note 4) .....</b>	<b>108,533,805</b>	<b>87,478,201</b>
Less: Accumulated depreciation and depletion .....	36,548,538	31,884,246
	71,985,267	55,593,955
<b>Goodwill .....</b>	<b>4,579,492</b>	<b>4,344,911</b>
<b>Other assets</b>		
Interest in Panarctic Oils Ltd., at cost (Note 5) .....	2,743,972	2,743,972
Interest in foreign partnership and incorporated joint venture, at equity value. ....	3,231,489	2,356,388
Investments in and advances to other companies, at cost .....	512,730	759,228
Sundry .....	473,225	507,305
	6,961,416	6,366,893
APPROVED BY THE BOARD:		
 Director		
 Director		
	\$118,399,109	\$100,455,354

LIABILITIES	1976	1975 (restated)
<b>Current liabilities</b>		
Operating bank loans, including cheques issued, at 10½ %, secured (Note 6) . . . . .	\$ 8,213,080	\$ 5,943,470
Bankers' acceptances at 9½ %, secured (Note 6) . . . . .	3,080,000	3,680,000
Accounts payable and accrued . . . . .	12,707,072	13,649,860
Estimated income taxes payable . . . . .	—	714,640
Long term debt due within one year . . . . .	7,757,692	5,462,377
	31,757,844	29,450,347
<b>Long term debt (Note 7) . . . . .</b>	<b>41,157,414</b>	<b>27,913,053</b>
<b>Deferred revenue . . . . .</b>	<b>607,437</b>	<b>46,286</b>
<b>Provision for major overhauls . . . . .</b>	<b>649,954</b>	<b>549,029</b>
<b>Deferred income taxes . . . . .</b>	<b>12,104,788</b>	<b>10,896,161</b>
<b>Shareholders' equity</b>		
Share capital (Note 9)		
5½ % cumulative redeemable preferred shares		
series A of a par value of \$20 each —		
Authorized and issued — 100,000 shares		
Outstanding — 72,300 shares (1975 — 75,850 shares) . . . . .	1,446,000	1,517,000
5% cumulative redeemable convertible second preference shares of a par value of \$100 each —		
Authorized, issued and outstanding —		
100,000 shares . . . . .	10,000,000	10,000,000
Common shares of no par value —		
Authorized — 7,000,000 shares		
Issued and outstanding — 4,826,326 shares (1975 — 4,792,726 shares) . . . . .	16,292,729	15,643,151
Capital redemption reserve fund, on redemption of preferred shares . . . . .	554,000	483,000
Contributed surplus . . . . .	159,854	131,088
Retained earnings (Note 10) . . . . .	3,669,089	3,826,239
	32,121,672	31,600,478
<b>Contingent liabilities and commitments (Note 12)</b>		
	\$ 118,399,109	\$ 100,455,354

## CONSOLIDATED STATEMENT OF INCOME

For the years ended May 31, 1976 and 1975 (Canadian Dollars)

	1976	1975
	(restated)	
<b>Revenue</b>		
Service, supply and construction		
Contract drilling — oil, gas and mining.....	\$ 37,918,721	\$29,644,810
Sale of oilfield equipment, supplies and services .....	9,717,359	11,939,148
Pipeline construction and plant maintenance.....	11,396,955	11,432,234
Aviation services .....	3,066,861	2,874,366
Pollution control equipment and services.....	1,767,805	2,002,271
Manufacturing		
Forest products, mining equipment, heating equipment and foundry sales.....	30,947,280	29,480,886
Oil and gas sales, less royalties .....	7,229,378	4,921,857
Other .....	1,283,153	1,645,469
	<b>103,327,512</b>	<b>93,941,041</b>
<b>Costs and expenses</b>		
Direct costs .....	76,206,823	67,054,693
General and administrative.....	12,978,945	11,125,462
Depreciation .....	4,162,994	3,834,953
Depletion .....	1,904,659	1,641,203
Mining properties abandoned .....	138,506	90,750
Amortization of deferred charges .....	63,457	132,488
Interest —		
On long term debt .....	4,137,495	2,766,375
Other .....	1,351,225	1,054,080
	<b>100,944,104</b>	<b>87,700,004</b>
<b>Income Before Income Taxes and Extraordinary Item</b> .....	<b>2,383,408</b>	<b>6,241,037</b>
<b>Taxes on Income (Note 8)</b>		
Current .....	145,422	834,206
Deferred .....	1,263,001	2,826,281
	<b>1,408,423</b>	<b>3,660,487</b>
<b>Income Before Extraordinary Item</b> .....	<b>974,985</b>	<b>2,580,550</b>
<b>Extraordinary Item</b>		
Reduction of income taxes due to utilization of loss carry forwards in subsidiary companies .....	—	276,715
<b>Net Income</b> .....	<b>\$ 974,985</b>	<b>\$ 2,857,265</b>
<b>Earnings per Common Share</b> , based on the weighted average number of shares outstanding		
Income before extraordinary item .....	\$ 0.08	\$ 0.42
Extraordinary item .....	—	0.06
<b>Net Income</b> .....	<b>\$ 0.08</b>	<b>\$ 0.48</b>

See notes to financial statements.

## CONSOLIDATED STATEMENT OF CHANGES IN FINANCIAL POSITION

For the years ended May 31, 1976 and 1975 (Canadian Dollars)

	1976	1975
		(restated)
<b>Source of working capital</b>		
Operations —		
Income before extraordinary item . . . . .	\$ 974,985	\$ 2,580,550
Add: Net total of non-cash items including depreciation, depletion, mining properties abandoned, amortization of deferred charges, gains or losses on disposals of capital assets, deferred income taxes, and income of foreign partnership and incorporated joint venture . . . . .	7,193,675	7,629,911
Working capital provided from operations before extraordinary item . . . . .	8,168,660	10,210,461
Working capital provided from extraordinary item . . . . .	—	139,196
Total working capital provided from operations . . . . .	8,168,660	10,349,657
Share capital issued . . . . .	649,578	294,443
Issue of long term debt . . . . .	20,464,603	18,929,718
Deferred revenue . . . . .	409,253	—
Repayment of advances from other companies . . . . .	157,648	—
Other . . . . .	276,772	1,108
	30,126,514	29,574,926
<b>Application of working capital</b>		
Additions to capital assets		
Land, buildings, drilling and other equipment . . . . .	6,349,755	5,568,863
Oil and gas properties and equipment and mining properties . . . . .	18,469,970	15,149,114
Less: Proceeds of disposals . . . . .	24,819,725	20,717,977
	2,839,958	3,670,983
	21,979,767	17,046,994
Repayment of long term debt and change in current portion . . . . .	7,263,574	7,103,762
Investment in subsidiary . . . . .	169,798	267,500
Increase in investment in Panarctic Oils Ltd. . . . .	—	459,806
Increase in investment in foreign partnership and incorporated joint venture . . . . .	935,238	872,655
Redemption of preferred shares . . . . .	42,234	40,961
Dividends paid . . . . .	1,061,135	1,062,564
Decrease in deferred revenue . . . . .	—	71,064
Transfer of oil and gas properties and rights held for resale to capital assets . . . . .	—	845,862
Other . . . . .	258,926	186,502
	31,710,672	27,957,670
<b>Increase (decrease) in working capital</b> . . . . .	(1,584,158)	1,617,256
<b>Working capital at beginning of year</b> . . . . .	4,699,248	3,081,992
<b>Working capital at end of year</b> . . . . .	\$ 3,115,090	\$ 4,699,248

## CHANGES IN COMPONENTS OF WORKING CAPITAL

For the years ended May 31, 1976 and 1975 (Canadian Dollars)

	1976	1975
<b>Increase (Decrease) in Current Assets</b>		
Accounts receivable —		
Trade .....	\$ (936,072)	\$3,250,946
Other .....	730,168	(299,321)
Inventories .....	1,188,131	5,123,416
Prepaid expenses .....	(258,888)	41,189
Net increase in current assets.....	723,339	8,116,230
<b>Increase (Decrease) in Current Liabilities</b>		
Operating bank loans, including cheques issued .....	\$ 2,269,610	\$ (944,323)
Bankers' acceptances.....	(600,000)	1,120,000
Accounts payable and accrued .....	(942,788)	4,124,563
Estimated income taxes payable .....	(714,640)	394,694
Long term debt due within one year .....	2,295,315	1,804,040
Net increase in current liabilities.....	2,307,497	6,498,974
<b>Increase (Decrease) in Working Capital</b>	<b>\$ (1,584,158)</b>	<b>\$ 1,617,256</b>

## CONSOLIDATED STATEMENT OF RETAINED EARNINGS

For the years ended May 31, 1976 and 1975 (Canadian Dollars)

	1976	1975
<b>Balance at beginning of year</b> , as previously reported.....	\$ 4,773,877	\$2,824,920
Prior period adjustment to retroactively change the method of accounting for oil and gas exploration and development costs (Note 2) .....	947,638	725,082
Balance at beginning of year, as restated .....	3,826,239	2,099,838
Net income for the year.....	974,985	2,857,265
	4,801,224	4,957,103
<b>Deduct</b>		
Dividends paid —		
5½ % preferred shares series A .....	81,483	85,396
5% second preference shares .....	500,000	500,000
Common shares (\$0.10 per share) .....	479,652	477,168
Amount transferred to capital redemption reserve fund*.....	71,000	68,300
	1,132,135	1,130,864
<b>Balance at end of year</b> .....	\$3,669,089	\$3,826,239

\*Pursuant to The Companies Act of Alberta

See notes to financial statements.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

### 1. Summary of Significant Accounting Policies

The following accounting principles and practices of Bow Valley Industries Ltd. and subsidiary companies ("Bow Valley") are set forth to facilitate the understanding of data presented in the financial statements.

#### **Principles of consolidation:**

The consolidated financial statements include the accounts of Bow Valley Industries Ltd. and its subsidiaries, all of which are wholly-owned, as well as Bow Valley's share of assets and liabilities, revenues and expenses of an unincorporated joint venture and three partnerships. Bow Valley's 50% interest in an incorporated joint venture and a 20% foreign partnership interest are accounted for by the equity method, and the results of their operations are included in other income in the consolidated financial statements on the basis of December 31, 1975 financial statements, which is the year end of both entities.

#### **Capital assets (excluding oil and gas properties) and depreciation:**

Depreciation of drilling and related equipment is calculated by the diminishing balance method mainly at the rate of 20%; oil and gas well and battery equipment by the straight-line method mainly at the rate of 10%; manufacturing, sales and service equipment by the diminishing balance method, mainly at the rate of 20%; helicopters and related equipment by the straight-line method mainly at the rate of 10% of cost less an estimated residual value equal to 40% of cost; buildings by the diminishing balance method at rates from 2½% to 7½%.

Additions, improvements and repairs and maintenance that significantly add to productive capacity or extend the life of an asset are capitalized. Other expenditures for repairs and maintenance are charged to income as incurred.

#### **Oil and Gas Properties and Depletion:**

Bow Valley follows the full cost method of accounting for oil and gas operations whereby all costs of exploring for and developing oil and gas and related reserves are capitalized and charged against earnings as set out below. Such costs include land acquisition costs, geological and geophysical expense, carrying charges of non-producing properties, costs of drilling both productive and non-productive wells and overhead expense related to exploration activities. The costs are accumulated in cost centres as follows:

- (i) North America — Canada and the United States except areas north of 60° N and offshore North American Continent.
- (ii) Frontier North America — North of 60° N and offshore North American Continent.
- (iii) North Western Europe — United Kingdom and the North Western section of the European Continent including its Continental Shelf which presently encompasses all sectors of the North Sea, Celtic Sea and English Channel.
- (iv) Middle East — Encompassing Abu Dhabi, Iraq, Iran and adjacent areas.
- (v) Other areas — A separate cost centre is established for each foreign area in which the Company is engaged in exploration activities.

Costs accumulated in producing cost centres (at present only North America) are depleted using the unit of production method based upon estimated proven reserves of oil and gas. In calculating depletion, natural gas and sulphur reserves and production are converted to equivalent barrels of crude oil based on the relative net sales value of each product.

Expenditures in non-producing cost centres are amortized by the straight-line method over ten years or until sufficient reserves are established to warrant economically commercial production, at which time amortization ceases. When production commences, costs are depleted by the unit of production method. If exploration is discontinued in a cost centre the unamortized costs in that area will be charged against income (included in depletion).

No gains or losses are ordinarily recognized upon the sale or disposition of oil or gas properties held for development purposes except under circumstances which result in a major disposal of reserves.

#### **Goodwill:**

Goodwill acquired prior to fiscal 1972 in the amount of \$3,920,752 is shown in the consolidated financial statements at cost. Management believes there are no reasons to expect any significant decrease in the value of this intangible asset and accordingly does not contemplate any amortization. Goodwill acquired subsequent to fiscal 1971 is being amortized over twenty years using the straight-line method.

#### **Provision for major overhauls:**

The provision for major overhauls relates mainly to Bow Valley's helicopter operations and is calculated on the basis of hours of aircraft operation. Actual costs, when incurred, are charged against such provision.

**Translation of foreign currencies:**

The financial statements of U.S. subsidiary companies are included in the consolidated financial statements on the basis of \$1 Cdn. equals \$1 U.S.

Financial statements of other foreign operations are translated on the following basis:

Current assets and liabilities — At year end rates of exchange except for materials and supplies held for use in oil and gas exploration activities, which are translated at historical rates.

Other assets and liabilities — At historical rates.

Revenue and expense items — At average rates of exchange throughout the year except for depreciation and depletion, which are converted at the rate of exchange applicable to the related assets.

**2. Changes in Accounting Policies**

During fiscal 1975 Bow Valley retroactively adopted the policy of charging current research and development expenditures to operations. This change had no material effect on net income for fiscal 1975.

During fiscal 1976 Bow Valley modified its full cost method of accounting for oil and gas operations by forming separate cost centres for significant areas of interest outside of North America and for Frontier North America (Arctic and offshore). Prior to this change Bow Valley followed the full cost method of accounting using only one cost centre. This change, which has been adopted retroactively, had the effect of decreasing net income for fiscal 1976 by \$327,000 (\$0.07 per share) and decreasing net income for fiscal 1975 by \$222,556 (\$0.04 per share).

**3. Inventories**

Inventories, which are valued at the lower of cost or net realizable value, consist of the following:

	1976	1975
Finished goods . . . . .	\$ 6,516,888	\$ 7,002,587
Work in progress . . . . .	2,130,814	1,606,116
Raw materials . . . . .	997,655	1,375,302
Materials and supplies . . . . .	6,047,631	4,520,852
	<b>\$15,692,988</b>	<b>\$14,504,857</b>

**4. Capital Assets**

	1976	1975		
	Cost	Accumulated depreciation and depletion	Net book value	Net book value
Land . . . . .	\$ 685,577	\$ —	\$ 685,577	\$ 645,985
Buildings . . . . .	4,388,704	850,713	3,537,991	2,939,444
Leasehold improvements . . . . .	793,221	249,908	543,313	593,574
Office equipment . . . . .	987,918	547,951	439,967	474,709
Automotive equipment . . . . .	2,458,165	1,329,359	1,128,806	1,076,264
Drilling and related equipment . . . . .	20,298,944	13,002,452	7,296,492	6,746,042
Manufacturing plant and equipment . . . . .	3,914,682	1,891,447	2,023,235	1,676,723
Helicopters and related equipment . . . . .	3,229,154	774,714	2,454,440	1,862,263
Sales and service equipment —				
Construction . . . . .	2,755,034	1,755,852	999,182	973,237
Pollution control . . . . .	634,225	256,904	377,321	242,040
Other . . . . .	89,328	49,427	39,901	24,246
Oil and gas properties . . . . .	57,667,876	12,251,711	45,416,165	35,302,641
Production equipment . . . . .	10,630,977	3,588,100	7,042,877	3,036,787
	<b>\$108,533,805</b>	<b>\$36,548,538</b>	<b>\$71,985,267</b>	<b>\$55,593,955</b>

**5. Interest in Panarctic Oils Ltd.**

Bow Valley has an interest in Panarctic Oils Ltd. (a company organized by private industry and the Government of Canada to explore for oil and gas in the Arctic Islands of Canada) the cost of which amounted to \$2,743,972 at May 31, 1976. As a result of not participating in the last two Panarctic financings, Bow Valley's interest in this company has been reduced from 2.24% to 2.03%. Panarctic Oils Ltd. is, at present, in the exploratory stage of operations. The most recent published financial statements indicate that all costs and expenses have been capitalized and that Panarctic Oils Ltd. is deemed to have realized no profit and sustained no loss to December 31, 1975.

Panarctic Oils Ltd. shares are closely held, are not generally traded and no quoted market value exists. In the opinion of management the fair value of Bow Valley's interest exceeds cost.

## 6. Bank Loans and Bankers' Acceptances

Operating bank loans and bankers' acceptances are secured by a \$2,000,000 floating charge demand debenture on the current assets of a subsidiary and various chattel mortgages. In addition, Bow Valley has granted the bank general assignments of accounts receivable and pledged certain inventories under Section 88 of The Bank Act.

There are no specific repayment terms for short term bank indebtedness. During the year ended May 31, 1976 the average amount of operating bank loans and bankers' acceptance outstanding was \$7.8 million (maximum \$10.1 million) and the weighted average interest rate was 9.4%. Bow Valley has an established line of credit with their bankers which covers short term bank borrowings of which approximately \$5.1 million was unused at May 31, 1976. Bow Valley has an unused line of credit related to long-term borrowings amounting to \$7.1 million.

## 7. Long Term Debt

	1976	1975
Bow Valley Industries Ltd.		
7% Sinking Fund Debentures Series "A" due March 1, 1986, redeemable with annual sinking fund instalments of \$158,000 in each of the years 1977 to 1985 inclusive (Authorized — \$4,000,000). . . . .	\$ 2,394,000	\$ 2,559,000
Bank loans, at current interest rates — 10 3/4 % to 11 3/4 %, repayable at the rate of \$498,000 per month to January 1977 and \$548,000 per month thereafter*. . . . .	41,149,633	28,144,814
Other. . . . .	102,240	146,499
	43,645,873	30,850,313
Subsidiaries		
Bank loans, at current interest rates, repayable at the rate of \$98,000 per month, secured by parent company (Bow Valley Industries Ltd.) guarantee and by chattel mortgages on equipment * . . . . .	4,431,928	2,314,257
Other. . . . .	837,305	210,860
	5,269,233	2,525,117
Total long term debt . . . . .	48,915,106	33,375,430
Less: Amount due within one year. . . . .	7,757,692	5,462,377
	\$41,157,414	\$27,913,053

\*The terms of the bank loans extend up to 1981, but the banks reserve the right to call the loans on demand. The 7% Sinking Fund Debentures Series "A" are secured by a first floating charge on all of Bow Valley's undertaking subject to permitted encumbrances.

The aggregate maturities of long term debt in each of the five years subsequent to May 31, 1976 are as follows:  
1977 — \$7,757,692; 1978 — \$8,135,091; 1979 — \$8,958,222; 1980 — \$9,627,653; 1981 — \$12,571,205.

## 8. Income Taxes

In fiscal 1976 total tax expense recorded in the financial statements amounted to \$1,408,423 (an effective rate of 59.1%) which exceeds the amount of \$1,134,000 computed by applying the Canadian corporate tax rate for the year ended May 31, 1976 of 47.6% to income before provision for income taxes.

In fiscal 1975 total tax expense recorded in the restated financial statements amounted to \$3,660,487 (an effective rate of 58.7% which exceeds the amount of \$3,033,000 computed by applying the Canadian corporate tax rate for the year ended May 31, 1975 of 48.6% to income before provision for income taxes).

These differences are accounted for as follows:

	\$ (thousands)	
	1976	1975
Computed income tax expense. . . . .	\$1,134	\$3,033
Add (deduct):		(restated)
Crown charges disallowed for tax purposes. . . . .	1,477	817
Operating losses of subsidiary companies against which no tax credits are reflected . . . . .	818	—
Deduction for tax purposes in respect of investment in Panarctic Oils Ltd. . . . .	(216)	—
Capital gains not subject to tax . . . . .	(76)	—
Resource profits rate reductions . . . . .	(888)	(230)
Provincial resource industry rebates . . . . .	(963)	(465)
Federal surtax for 1975 . . . . .	—	247
Other. . . . .	122	258
Tax expense reflected in the accounts . . . . .	\$1,408	\$3,660

The deferred income tax expense of \$1,263,001 (1975 — restated — \$2,826,281) results from timing differences in the recognition of revenues and expenses for tax and financial statement purposes. The main components of these differences, and the tax effect thereof, are as follows:

	\$ (thousands)	1976	1975
Excess of capital cost allowance for tax purposes over depreciation .....	\$ 767	\$ 1,264	(restated)
Excess of drilling and exploration expenditures for tax purposes over depletion .....	1,202	1,704	
Accounting losses for which tax credits are recognized .....	(215)	—	
Provincial resource industry rebates .....	(244)	—	
Other .....	(247)	(142)	
	<b>\$1,263</b>	<b>\$2,826</b>	

At May 31, 1976 subsidiary companies had tax losses of \$741,000, which expire at varying dates to 1981, available to carry forward against future taxable incomes. In addition there are capital cost allowances and drilling and exploration costs available for tax purposes in certain subsidiaries in excess of the related net book value of such expenditures for accounting purposes in the amount of \$1,714,000. No provision has been made in the accounts for possible future tax benefits which may arise from these items.

#### 9. Share Capital, Share Purchase Warrants and Share Options

Bow Valley is required to expend \$40,000 per year (or such lesser amount as would increase the fund to \$80,000) on a series "A" preferred share purchase fund for the redemption or retirement of its 5½% cumulative redeemable preferred shares series "A", provided such shares are available in the open market for purchase at a price not exceeding their par value plus reasonable cost of acquisition. The series "A" preferred shares are subject to redemption at any time at \$21 per share. On liquidation, dissolution or winding up they rank prior to the common and second preference shares and holders are entitled to receive \$21 per share plus accrued unpaid dividends.

The 5% cumulative redeemable convertible second preference shares of a par value of \$100 each are convertible at any time prior to April 2, 1979, into common shares at an initial conversion price of \$30 per common share (3½ common shares for one preference share). These shares rank junior to the series "A" preferred shares and are subject to redemption at \$105 per share, plus accumulated unpaid dividends, except that during the period to April 1, 1979 redemptions are subject to deferral under certain conditions.

On or before March 31 in each year, commencing with the year 1980, Bow Valley is required to set aside as a sinking fund an amount equal to 5% of the par value of the second preference shares outstanding at the close of business on April 1, 1979 for the purpose of either redeeming or purchasing the shares.

The following table sets out the change in issued common share capital during the two years ended May 31, 1976:

	Number of shares	Amount
Balance, May 31, 1974 .....	4,770,626	\$ 15,348,708
Shares issued for cash upon exercise of options .....	2,100	26,943
Shares issued as further consideration for the acquisition of Western Research & Development Ltd.....	20,000	267,500
Balance, May 31, 1975 .....	4,792,726	15,643,151
Shares issued for cash upon exercise of options .....	33,600	649,578
Balance, May 31, 1976 .....	4,826,326	\$ 16,292,729

Of the authorized but unissued common shares, 494,098 were reserved at May 31, 1976 for the following:

- (a) Options granted, or to be granted, up to an aggregate of 160,765 common shares of Bow Valley to officers and employees of Bow Valley under the terms of the Bow Valley Industries Ltd. Incentive Stock Option Plan.
- (b) 5% cumulative redeemable convertible second preference shares convertible into initially 333,333 common shares of Bow Valley.

As at May 31, 1976, the details of common shares under option are as follows:

Date Granted	Number of Shares	Option Price		Market Value at Date of Grant	
		Per Share	Total	Per Share	Total
June 14, 1971 .....	250	\$21.61	\$ 5,403	\$22.75	\$ 5,688
September 29, 1971 .....	500	25.89	12,945	27.25	13,625
November 30, 1971 .....	41,840	23.87	998,721	25.15	1,052,276
May 18, 1972 .....	5,900	28.74	169,566	30.25	178,475
December 11, 1972 .....	1,900	41.09	78,071	43.25	82,175
March 15, 1973 .....	1,500	33.61	50,415	35.38	53,070
June 6, 1973 .....	18,350	25.18	462,053	26.50	486,275
May 29, 1974 .....	35,950	17.81	640,270	18.75	674,063
April 22, 1975 .....	37,450	15.08	564,746	15.87	594,332
	143,640				

The following table sets out details regarding options exercised during the two years ended May 31, 1976:

Year Ended	Date Granted	Number of Shares	Option Price		Market Value at Date of Exercise	
			Per Share	Total	Per Share	Total
May 31, 1975:						
	May 12, 1970	2,100	\$12.88	\$ 26,943	\$13.75 to 16.50	\$ 32,051
May 31, 1976:	February 23, 1971	3,650	\$16.03	\$ 58,510	\$17.38 to 18.50	\$ 66,581
	November 30, 1971	14,400	23.87	343,729	25.25 to 26.63	366,000
	June 6, 1973	150	25.18	3,777	25.50	3,825
	May 29, 1974	4,150	17.81	73,912	25.00 to 27.50	107,025
	April 22, 1975	11,250	15.08	169,650	17.75 to 27.50	277,100
		33,600		\$649,578		\$820,531

Options are exercisable within a period of five years from the date of grant or one year from the date of death of an optionee or within three months of termination of employment due to permanent disability or retirement under a Company retirement plan. The value assigned to the shares on the exercise of options is the option price multiplied by the number of shares issued. No charges are made against income.

#### 10. Restrictions on Dividends

Under the terms of the Trust Deed for the 7% Sinking Fund Debentures Series "A" of Bow Valley Industries Ltd. and the terms of the series "A" preferred shares, dividends on common shares shall not be declared or paid:

- (a) If, after giving effect to such declaration or payment, the aggregate of the consolidated retained earnings and capital surplus of Bow Valley will be less than \$3,000,000; and
- (b) Unless after giving effect to such dividends the amount of the consolidated retained earnings will be at least 125% of the par value of all of the series "A" preferred shares and all preferred shares ranking in priority thereto or equally therewith then issued and outstanding.

At May 31, 1976 approximately \$1,382,943 of the consolidated retained earnings, capital redemption reserve fund and contributed surplus were free of these restrictions.

#### 11. Remuneration of Directors and Senior Officers

During fiscal 1976, there were eleven directors and thirteen officers of whom five were also directors (1975 ten directors and thirteen officers, of whom six were also directors). Directors' fees and officers' remuneration for the year amounted to \$18,334 and \$750,805 respectively (1975 — \$6,811 and \$533,167 respectively). Officers who are also directors receive no remuneration in their capacity as directors.

#### 12. Contingent Liabilities and Commitments

At May 31, 1976 Bow Valley was contingently liable as follows:

- (a) For the liabilities of the co-owners in the joint ventures and partnerships, but against which Bow Valley would have a claim against the other co-owners and the interest of the co-owners in the joint venture and partnership assets.
- (b) As guarantor of the indebtedness of third parties and discounted conditional sales contracts in the amount of approximately \$3,700,000.
- (c) Bow Valley has issued non-interest bearing demand promissory notes in the amount of \$1,000,000 to a foreign government to be held as work performance deposits in respect of exploratory rights.

There are outstanding claims against a subsidiary (Bow Helicopters Ltd.) in the amount of approximately \$650,000 relating to an accident in July 1969. Counsel for the insurers have taken the position that these do not fall within the coverage afforded by the applicable liability policies, but this position has been disputed. Bow Valley's legal counsel is of the opinion that the subsidiary has a meritorious defence and should prevail at trial.

#### 13. Anti-Inflation Program

Bow Valley (with the exception of its oil and gas operations and its foreign branches and subsidiaries) is subject to controls on prices, profits, compensation and dividends instituted by the Government of Canada in the Anti-Inflation Act effective October 14, 1975.

Among other things, the Act places a restriction on levels of profit which may be earned. Based on their interpretation of the existing Act and Regulations, Bow Valley has calculated that they may have excess revenues for the year ended May 31, 1976 and are preparing compliance plans which would eliminate any excess during fiscal 1977. No provision has been made in the accounts at May 31, 1976 because of the many uncertainties concerning the determination of excess revenues and because the Regulations are presently undergoing substantial revision. Because of these uncertainties the impact of the Anti-Inflation Program on Bow Valley's future operations cannot be accurately determined.

## AUDITORS' REPORT

To the Shareholders of  
BOW VALLEY INDUSTRIES LTD.

We have examined the consolidated balance sheet of Bow Valley Industries Ltd. and subsidiary companies as at May 31, 1976 and 1975 and the consolidated statements of income, retained earnings and changes in financial position for the two years then ended. Our examinations were made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion these consolidated financial statements present fairly the financial position of the companies as at May 31, 1976 and 1975 and the results of their operations and the changes in their financial position for the two years then ended, in conformity with generally accepted accounting principles applied on a consistent basis after restatement for the change, with which we concur, in the method of accounting for oil and gas exploration and development costs as described in Note 2 to the financial statements.

CALGARY, Alberta  
July 9, 1976

PRICE WATERHOUSE & CO.  
Chartered Accountants

## MANAGEMENT'S DISCUSSION AND ANALYSIS OF THE SUMMARY OF EARNINGS

### Fiscal 1976 Compared to Fiscal 1975

#### Service, Supply, and Construction

Oil and gas well drilling was responsible for the increased service revenues in fiscal 1976. Their profits also increased by a satisfactory amount as the industry enjoyed a much improved economic climate in western Canada and Alberta in particular. Total service profits did not improve, however, as other aspects of Bow Valley's service divisions experienced a substantial increase in costs in fiscal 1976.

#### Manufacturing

In fiscal 1976, depressed market conditions and numerous labour disputes in the forest products and mining industries resulted in losses for Bow Valley's subsidiaries active in these areas. Whereas revenues were maintained at the same level as the prior year, cost escalations were much higher than price increases to customers. Both the forest products and mining industries remain very competitive. Increased housebuilding in Alberta provided a good increase in revenue and profit for the heating equipment subsidiary.

#### Oil and Gas Sales, Less Royalties

Oil and gas sales increased with improved unit prices, however, additional bank borrowings have resulted in substantially higher interest costs and no increase in profit.

#### Other

In fiscal 1976 a joint venture loss of approximately \$750,000 was incurred on a two-year contract to lease the ODIN DRILL and related equipment on location in the North Sea. Although the lease contract expired in June 1976, there will be a further loss in fiscal 1977. Bow Valley's 20 percent equity in the ODIN DRILL continues to be a profitable investment as the semi-submersible rig has been on continuous contracts since its commission in June of 1974.

### Fiscal 1975 Compared to Fiscal 1974

Contract drilling (mining) revenues and expenses increased substantially owing to the acquisition of certain of the branches of Inspiration Drilling Operations, a division of Dresser Industrial Products, Ltd. which more than doubled the number of drills Bow Valley operates. Oil and gas well drilling activity was reduced but an efficient operation resulted in higher earnings.

Foundry and engineering sales increased but inflationary costs more than offset the gain and a lower profit was recorded.

The pipeline construction and plant maintenance subsidiaries increased revenues and profits by acquiring a water and sewer contract as well as a pulp and paper plant maintenance contract.

Revenues and profits from the aviation service subsidiary increased substantially owing to the strategic location of helicopters and a high level of support work for fighting forest fires.

Heating equipment sales and expenses were higher owing to larger plant facilities and a more active selling program in the commercial and industrial markets.

Oilfield equipment and supplies revenue and profit increased because of the availability to the supply divisions of pipe and other material that was generally in short supply.

Provision for income tax has increased substantially because of the non-deductibility of royalties resulting from new income tax legislation effective May 6, 1974. Bow Valley's tax rate in fiscal 1975 was 57 percent.

Increased activity in the oil and gas division required an increase in bank borrowings, resulting in substantially higher interest costs.

### Fiscal 1974 Compared to Fiscal 1973

New equipment and larger facilities increased revenues and expenses in the forest products and mining equipment and foundry sales operations.

Higher crude oil and natural gas prices increased revenue in 1974. Government restrictions on oil and gas exports reduced pipeline construction. Heating equipment sales decreased because of material shortages and a general decline in housing construction.

#### Stock Price

The following table indicates the quarterly high bid and low bid prices for the common stock of the Company on the Toronto Stock Exchange for the last two fiscal years of the Company.

	Fiscal 1976	Fiscal 1975
First Quarter .....	16½	13½
Second Quarter .....	16½	11½
Third Quarter .....	19	14½
Fourth Quarter .....	28¾	16¾
		22½ 13¼
		15½ 8¾
		14¾ 9
		18½ 12¾

## RELATIVE CONTRIBUTIONS OF LINES OF BUSINESS\*

(Unaudited)

(thousands of Canadian dollars)

Year Ended May 31,

REVENUE AND SALES	1976		1975		1974		1973		1972	
<b>Service, Supply, and Construction:</b>										
Contract drilling — oil, gas, and mining . . . . .	\$ 37,919	37%	\$29,645	32%	\$25,790	35%	\$23,167	38%	\$17,159	36%
Sale of oilfield equipment, supplies, and services . . .	9,717	9%	11,939	13%	9,186	13%	7,435	12%	4,975	10%
Pipeline construction and plant maintenance . . . .	11,397	11%	11,432	12%	7,251	10%	8,453	14%	5,220	11%
Aviation services . . . . .	3,067	3%	2,874	3%	1,999	3%	1,782	3%	2,508	5%
Pollution control equipment and services . . . . .	1,768	2%	2,002	2%	1,517	2%	1,268	2%	1,055	2%
<b>Manufacturing:</b>										
Forest products, mining equipment, heating equipment, and foundry sales . . . . .	30,947	30%	29,481	31%	23,238	31%	16,361	26%	13,913	29%
Oil and gas sales, less royalties .	7,229	7%	4,922	5%	3,427	5%	2,567	4%	2,824	6%
Other . . . . .	1,283	1%	1,646	2%	1,018	1%	689	1%	539	1%
	<b>\$103,327</b>	<b>100%</b>	<b>\$93,941</b>	<b>100%</b>	<b>\$73,426</b>	<b>100%</b>	<b>\$61,722</b>	<b>100%</b>	<b>\$48,193</b>	<b>100%</b>

## INCOME BEFORE INCOME TAXES AND EXTRAORDINARY ITEMS

Service, Supply, and Construction:

Contract drilling — oil, gas, and mining . . . . .	\$ 3,924	165%	\$ 2,878	46%	\$ 1,753	59%	\$ 1,477	94%	\$ 20	2%
Sales of oilfield equipment, supplies, and services . . .	152	7%	721	12%	264	9%	97	6%	(94)	(9%)
Pipeline construction and plant maintenance . . . .	360	15%	763	12%	(65)	(2%)	18	1%	303	29%
Aviation services . . . . .	(87)	(4%)	381	6%	(384)	(13%)	(656)	(42%)	122	12%
Pollution control equipment and services . . . . .	(351)	(15%)	67	1%	5	—	68	4%	100	10%

Manufacturing:

Forest products, mining equipment, heating equipment, and foundry sales . . . . .	(1,128)	(47%)	1,225	20%	1,801	60%	1,144	73%	778	75%
Oil and gas sales, less royalties .	(990)	(42%)	(992)	(16%)	(1,077)	(36%)	(1,091)	(69%)	(614)	(59%)
Other . . . . .	504	21%	1,198	19%	686	23%	513	33%	429	40%
	<b>\$ 2,384</b>	<b>100%</b>	<b>\$ 6,241</b>	<b>100%</b>	<b>\$ 2,983</b>	<b>100%</b>	<b>\$ 1,570</b>	<b>100%</b>	<b>\$ 1,044</b>	<b>100%</b>

\* As restated to reflect the retroactive adoption of the change in accounting for oil and gas exploration and development costs outlined in Note 2 to the financial statements.

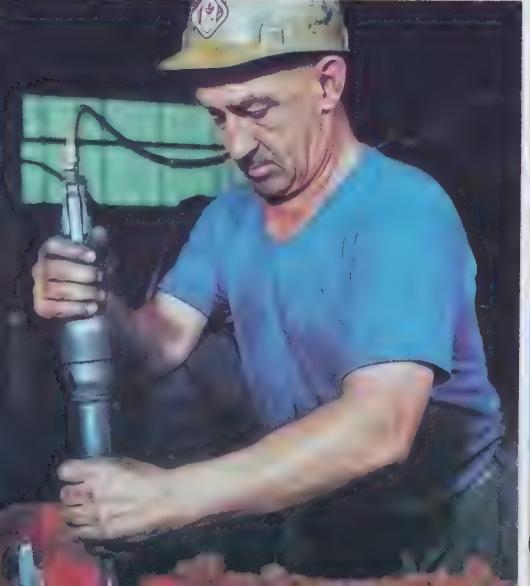
Bow Valley Industries Ltd. and Subsidiary Companies

**FIVE YEAR SUMMARY\***

May 31, 1976 (thousands of Canadian dollars, except for per share amounts)

	1976	1975	1974	1973	1972
Revenue . . . . .	\$ 103,328	\$ 93,941	\$ 73,426	\$ 61,722	\$ 48,193
Costs and expenses					
Direct costs . . . . .	76,207	67,055	54,230	46,334	36,065
General and administrative . . . . .	12,978	11,125	8,181	7,198	6,027
Depreciation, depletion and amortization of deferred charges . . . . .	6,131	5,609	5,499	5,064	4,056
Mining properties abandoned . . . . .	139	91	37	75	9
Interest — On long term debt . . . . .	4,138	2,766	1,669	1,025	587
— Other . . . . .	1,351	1,054	827	456	405
	100,944	87,700	70,443	60,152	47,149
	2,384	6,241	2,983	1,570	1,044
Taxes on income					
Current . . . . .	146	834	449	225	98
Deferred . . . . .	1,263	2,827	1,207	531	519
	1,409	3,661	1,656	756	617
Income before extraordinary items . . . . .	975	2,580	1,327	814	427
Extraordinary items . . . . .	—	277	—	66	208
Net income . . . . .	\$ 975	\$ 2,857	\$ 1,327	\$ 880	\$ 635
Deduct — Preferred share dividend requirements . . . . .	581	586	589	592	594
Net income applicable to common shares . . . . .	\$ 394	\$ 2,271	\$ 738	\$ 288	\$ 41
Weighted average shares outstanding . . . . .	4,794,668	4,771,822	4,768,873	4,759,683	4,694,731
PER COMMON SHARE					
Income before extraordinary items . . . . .	\$ 0.08	\$ 0.42	\$ 0.15	\$ 0.05	\$ (0.03)
Extraordinary items . . . . .	—	0.06	—	0.01	0.04
Net income . . . . .	\$ 0.08	\$ 0.48	\$ 0.15	\$ 0.06	\$ 0.01
Dividends per share					
Common . . . . .	\$ 0.10	\$ 0.10	\$ 0.10	\$ 0.10	\$ 0.10
Preferred, series A . . . . .	1.10	1.10	1.10	1.10	1.10
Second preference . . . . .	5.00	5.00	5.00	5.00	5.00

\* As restated to reflect the retroactive adoption of the change in accounting for oil and gas exploration and development costs outlined in Note 2 to the financial statements.



**Officers**

DARYL K. SEAMAN, President  
BYRON J. SEAMAN, Executive Vice-President  
H. DONALD BINNEY, Senior Vice-President  
J. RICHARD HARRIS, Senior Vice-President  
DONALD R. SEAMAN, Senior Vice-President  
H. F. COPE, Vice-President  
WILLIAM C. HAY, Vice-President  
H. KEITH LAZELLE, Vice-President and Secretary  
ROBERT J. PHIBBS, Vice-President  
DONALD G. THURSTON, Vice-President  
FREDERIC J. WELLHAUSER, Vice-President  
JOHN WONDERLY, Vice-President  
TREVOR A. LEGGE, Treasurer and Controller

**Directors**

FREDERIC J. AHERN, Vice-President, The United Corporation, New York  
H. DONALD BINNEY, Senior Vice-President, Bow Valley Industries Ltd., Calgary  
R. GUY GODBOUT, President, Les Industries Valcartier Inc., Quebec City  
JAMES S. GRAHAM, Industrialist, Vancouver  
J. RICHARD HARRIS, Senior Vice-President, Bow Valley Industries Ltd., Calgary  
MAJOR GENERAL LORD MICHAEL FITZALAN HOWARD, KCVO, CB, CBE, MC, DL, Marshal of the Diplomatic Corps., London  
WILLIAM A. HOWARD, Q.C., Barrister and Solicitor, Calgary  
BYRON J. SEAMAN, Executive Vice-President, Bow Valley Industries Ltd., Calgary  
DARYL K. SEAMAN, President, Bow Valley Industries Ltd., Calgary  
DONALD R. SEAMAN, Senior Vice-President, Bow Valley Industries Ltd., Calgary  
D'ALTON L. SINCLAIR, Financial Consultant, Toronto

**Head Office**

630 - 6th Avenue South West, Calgary  
Telephone: 231-1211  
Telex: 24692

**Overseas Offices**

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Lex House  
3/5 Burlington Gardens  
London W1X 1L3  
Telephone: 734-3666  
Telex: 23688

BOW VALLEY EXPLORATION (SINGAPORE) PTE. LTD.

1502 - 1503  
Goldhill Plaza  
Newton Road  
Singapore II  
Telephone: 252-2160  
Telex: 534031

**Transfer Agents**

Common Stock

GUARANTY TRUST COMPANY OF CANADA, Calgary, Toronto, and Vancouver  
THE BANK OF NEW YORK, New York

Preferred Stock, Series A

THE ROYAL TRUST COMPANY, Calgary, Winnipeg, Toronto, and Montreal

**Registrars**

Common Stock

GUARANTY TRUST COMPANY OF CANADA, Calgary, Toronto, and Vancouver  
THE BANK OF NEW YORK, New York

Preferred Stock, Series A

GUARANTY TRUST COMPANY OF CANADA, Calgary, Winnipeg, Toronto, and Montreal

**Stock Exchange Listings — Common Shares**

Toronto Stock Exchange  
American Stock Exchange  
London Stock Exchange (Section 163(1)E)

**Auditor**

PRICE WATERHOUSE & CO.

**Legal Counsel**

HOWARD, DIXON, MACKIE, FORSYTH, Calgary  
PAUL, WEISS, RIFKIND, WHARTON & GARRISON, New York  
TEACHER, STERN, HUNTER & SELBY, London

**Banker**

THE ROYAL BANK OF CANADA



**Bow Valley Industries Ltd.**  
1976 ANNUAL REPORT

AR31

# Interim Report to Shareholders

Six months ended November 30, 1976



Bow Valley Industries Ltd.

630 - 6th AVENUE S.W.  
CALGARY T2P 6S8



Bow Valley Industries Ltd.

TO THE SHAREHOLDERS  
BOW VALLEY INDUSTRIES LTD

## SIX MONTHS' RESULTS

Bow Valley's net income for the six months ended November 30, 1976, amounted to \$1,388,030, or 23 cents per share, compared to \$958,007, or 14 cents per share, for the same period last year. Cash flow increased to \$5,605,621, or \$1.16 per share, from \$4,617,856, or 96 cents per share.

Bow Valley had a substantial increase in profits from gas production. These large gains were partially offset, however, by a \$1,000,000 write off of certain non-recurring costs related to a service contract in the North Sea. This contract has been terminated and no further costs remain to be expensed.

## PETROLEUM EXPLORATION

Recent developments in Bow Valley's oil and gas operation are summarized as follows:

**Western Canada** — For the six months ended November 30, 1976, Bow Valley's gas production averaged 39,426 Mcf per day compared to 22,314 Mcf per day for the first half of fiscal 1976. The Wandering River area of northeastern Alberta is Bow Valley's largest source of the increase in gas production. Bow Valley, with a 67 percent interest, is operator of the project. There are 87 wells in the area, of which 26 are connected to the gas-gathering system. Gross production is currently 21 MMcf per day and should increase to 27 MMcf per day once additional wells are tied into the system this winter. At this higher production rate, there will still remain a number of wells available for future production.

Bow Valley is continuing an active exploration and development program in western Canada and in fiscal 1977 will spend \$10,800,000, principally in Alberta. (This compares to foreign budgeted expenditures in fiscal 1977 of \$10,200,000.) During the six months ended November 30, 1976, Bow Valley participated in the drilling of 19 exploratory wells and 45 development wells. Of these totals, 16 of the exploratory wells and 41 of the development wells were drilled in Canada. The total overall success ratio was 72 percent.

**Mackenzie Delta** — Sun Oil Company Limited is drilling Unark L24-A below 5,500 feet from an artificial island on Unark Permit W-947. The well had earlier reached a depth of 11,400 feet but had to be plugged back after encountering mechanical difficulties. This well is Sun's third commitment well and, upon its completion, Sun will be entitled to a 45 percent interest in Permit W-947. Bow Valley's interest in this permit will be reduced to 27.5 percent, as compared to a 50 percent interest in the other seven permits in the area. Unark L-24A will be drilled to approximately 15,000 feet to test gas-bearing formations that were inadequately tested in April 1974 by the original well which encountered high pressure problems. Unark L-24A is being directionally drilled northeast of the original location in an attempt to encounter the gas reservoir at a higher structural elevation. It now appears that an appraisal well planned for this winter on last year's Garry discovery will be drilled during the 1977-1978 drilling season.

**United Kingdom** — The Brae appraisal well 16/7-5 was abandoned on December 23, 1976, at 13,147 feet after encountering non-commercial hydrocarbon shows in the Upper Jurassic zone. The well was drilled 6.7 miles north of the 16/7-4 well, and proved to be on the western edge of the Brae field. The 16/7-6 well, 1.9 miles south of the successful 16/7-3 well, was spudded on October 9, 1976, and has reached a total depth of 13,760 feet. The well is being tested.

On December 26, 1976, the 16/7-7 well commenced drilling 2.0 miles southwest of the 16/7-1 discovery well while a location for 16/7-8 has been announced 2.4 miles south of the 16/7-6 well. The information obtained from testing these wells will be instrumental in establishing what initial production facilities will have to be ordered to ensure production of the field at the earliest possible date.

Bow Valley's interest in the Brae field and adjacent areas is held through a 14 percent interest in one production licence and a 17.5 percent interest in another. Bow Valley relinquished half its interest in the production licences to Ashland Oil, Inc., Ashland Oil Canada Limited and The Louisiana Land and Ex-

ploration Company upon the agreement of these companies to finance, on a non-recourse basis, Bow Valley's share of all past and future costs to explore, appraise, and if warranted, to develop the Brae field. The definitive agreement covering this arrangement was formally executed with the approval in principle of the U.K. Department of Energy on January 13, 1977. Closing, which is subject to fulfilment of certain conditions, is expected to occur on or before February 15, 1977.

A more detailed analysis of the Brae field is featured on the reverse side of this report.

During October 1976 the U.K. Government, in the fifth round of bids, invited applications for blocks in the U.K. North Sea. Bow Valley, as a participant in two groups, filed applications on certain blocks and an announcement of the successful bids is expected in February 1977.

**Norway** — Bow Valley has an eight percent interest in the Heimdal gas and condensate field in the Norwegian North Sea. An analysis of reserves and anticipated production facilities is presently being made to determine the most economic development for the field.

**Abu Dhabi** — On November 24, 1976, the fifth development well commenced drilling in the Arzanah field, offshore Abu Dhabi in the Arabian Gulf.

The designing, engineering, and construction of the production facilities are underway and Arzanah is expected to be on stream in January 1978 with initial production of 25,000 barrels of oil per day. Bow Valley has a ten percent interest in the offshore field and has arranged a \$9,000,000 bank loan to finance the project.

An exploratory well, Sandouq 1, was drilled nine miles east of Arzanah Island to test a separate structure from Arzanah. The well encountered non-commercial oil and gas shows and was abandoned on November 23, 1976.

**Egypt** — The exploratory well Q-72-1X, drilled 25 miles northeast of Cairo, was abandoned on December 6, 1976. The well, testing the first of several structures identified on a 1,112,000-acre block, was drilled below 12,000 feet without encountering commercial hydrocarbons. A thick sedimentary section was proven; accordingly, additional seismic work will be undertaken during the next few months and two further exploratory wells will be drilled commencing in June 1977. Bow Valley is a 20 percent participant in the project.

## SERVICE AND MANUFACTURING

Bow Valley Resource Services Ltd. is being formed to consolidate all of Bow Valley's non-oil and gas assets into one wholly-owned subsidiary company. There are a number of economies and efficiencies that will be effected from this reorganization.

The service divisions, during the first half of fiscal 1976, had an increase in earnings primarily due to a more active oil and gas exploration program in Alberta. Whereas this increase in activity was most beneficial to the drilling and supply divisions, the pipeline operation experienced a large loss on a water line contract and was unable to earn profits commensurate with a large increase in revenue. Other service divisions compared similarly to their last year's performance; however, the environmental control division showed a marked improvement in its earnings.

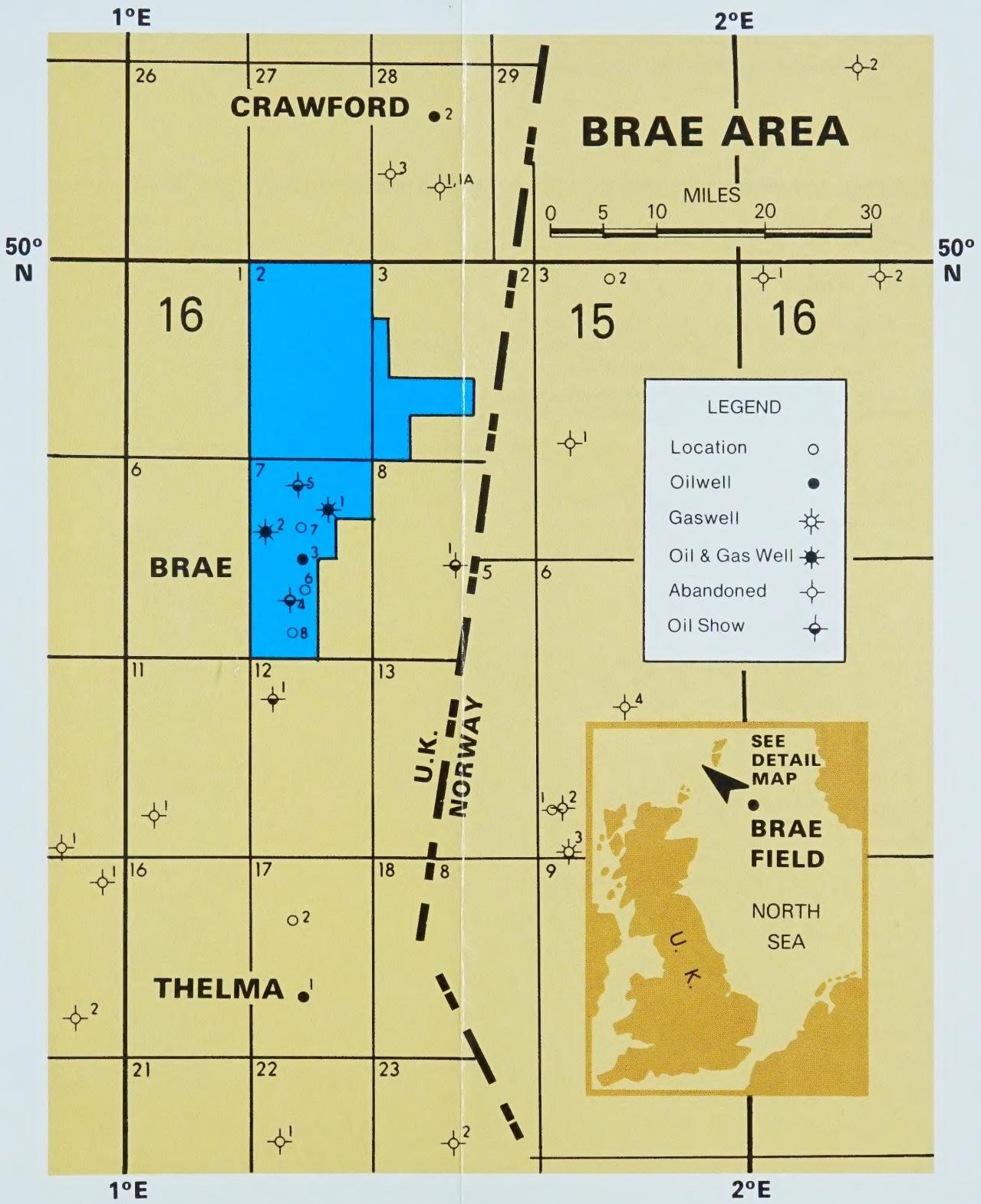
The manufacturing divisions involved in the forest products and mining industries continued to suffer from low profit margins during the second quarter of fiscal 1977. Cost reduction programs and other economies are being implemented.

## OUTLOOK

The earnings during the second half of fiscal 1977 should continue to improve with the increase in profits from the sale of natural gas, the reduction in interest costs due to the receipt of funds from the Brae farm-out and the completion in the first half of fiscal 1977 of all write-offs on the \$1,000,000 non-recurring loss on the North Sea service contract.

J. RICHARD HARRIS  
President and  
Chief Operating Officer

DARYL K. SEAMAN  
Chairman of the Board  
and Chief Executive Officer





**Bow Valley Industries Ltd. and subsidiary companies**

## **CONSOLIDATED STATEMENT OF INCOME**

	<b>3 months to November 30, 1976</b>	<b>3 months to November 30, 1975</b>	<b>6 months to November 30, 1976</b>	<b>6 months to November 30, 1975</b>
<b>REVENUE</b>				
Service, supply and construction				
Contract drilling — oil, gas and mining .....	\$11,114,668	\$ 9,084,665	\$23,138,337	\$17,633,992
Pipeline construction and plant maintenance .....	6,019,058	5,081,080	11,276,444	6,751,264
Sale of oilfield equipment, supplies and services .....	2,485,377	2,111,424	4,373,153	4,212,874
Aviation services .....	1,023,168	567,485	2,678,625	2,075,952
Pollution control equipment and services .....	538,062	439,865	1,029,392	976,392
Manufacturing				
Forest products, mining equipment, heating equipment and foundry sales .....	8,741,122	7,525,585	17,016,518	15,539,751
Oil and gas sales, less royalties .....	3,355,138	1,644,530	6,200,289	2,990,883
Other .....	115,899	27,043	627,547	508,614
	<b>33,392,492</b>	<b>26,481,677</b>	<b>66,340,305</b>	<b>50,689,722</b>
<b>COSTS AND EXPENSES</b>				
Operating, general and administrative, interest and amortization of deferred charges .....	30,843,545	24,634,827	60,341,960	45,794,521
Depreciation .....	1,206,993	1,006,058	2,416,750	2,012,646
Depletion .....	524,445	463,953	1,038,654	948,432
	<b>32,574,983</b>	<b>26,104,838</b>	<b>63,797,364</b>	<b>48,755,599</b>
<b>INCOME BEFORE TAXES AND EXTRAORDINARY ITEM</b> .....	<b>817,509</b>	<b>376,839</b>	<b>2,542,941</b>	<b>1,934,123</b>
Taxes on income - Current (recovery) .....	375,414	(160,826)	1,027,542	157,308
- Deferred .....	52,266	358,933	246,669	818,808
	<b>427,680</b>	<b>198,107</b>	<b>1,274,211</b>	<b>976,116</b>
<b>INCOME BEFORE EXTRAORDINARY ITEM</b> .....	<b>389,829</b>	<b>178,732</b>	<b>1,268,730</b>	<b>958,007</b>
Reduction of income taxes due to utilization of loss carry forwards in subsidiary companies .....	31,800	—	119,300	—
<b>NET INCOME FOR THE PERIOD</b> .....	<b>\$ 421,629</b>	<b>\$ 178,732</b>	<b>\$ 1,388,030</b>	<b>\$ 958,007</b>
<b>CASH FLOW after preferred and preference dividends</b> .....	<b>\$ 2,601,179</b>	<b>\$ 2,002,604</b>	<b>\$ 5,605,621</b>	<b>\$ 4,617,856</b>
Average number of common shares outstanding .....	4,833,803	4,792,726	4,832,635	4,792,726
Per common share*				
Income before extraordinary item .....	5¢	1¢	21¢	14¢
Extraordinary item .....	1¢	—	2¢	—
Net income .....	6¢	1¢	23¢	14¢
Cash flow .....	54¢	42¢	\$1.16	96¢

\*Based on average number of common shares outstanding and after dividend requirements on Series "A" Preferred Shares and Second Preference Shares.

The above figures are subject to audit.



**Bow Valley Industries Ltd.** and subsidiary companies

## **CONSOLIDATED STATEMENT OF SOURCE AND APPLICATION OF FUNDS**

**Six months ended  
November 30,**

	1976	1975
<b>SOURCE OF FUNDS</b>		
Operations		
Net income before extraordinary item .....	\$ 1,268,730	\$ 958,007
Add non-cash charges included depreciation, depletion, amortization of deferred charges, gains or losses on disposal of assets, etc. ....	4,508,091	3,951,567
Working capital provided from operations before extraordinary item .....	5,776,821	4,909,574
Working capital provided from extraordinary item .....	119,300	—
Share capital issued .....	5,896,121	4,909,574
Issue of long term debt .....	130,590	—
Decrease in current portion of long term debt .....	8,592,482	9,195,872
Repayment of advances to other companies .....	5,014,091	—
Other .....	908,997	684,848
	219,282	5,369
	<u>20,761,563</u>	<u>14,795,663</u>
<b>APPLICATION OF FUNDS</b>		
Additions to capital assets		
Land, buildings and office equipment .....	242,120	373,165
Drilling and other plant and equipment .....	2,519,751	2,759,212
Oil and gas properties and equipment .....	7,736,873	7,832,833
Less proceeds of disposals .....	10,498,744	10,965,210
	946,089	2,323,990
Repayment of long term debt .....	9,552,655	8,641,220
Increase in current portion of long term debt .....	1,690,536	2,065,101
Investment in subsidiary companies less working capital .....	—	1,283,805
Decrease in deferred revenue .....	—	229,374
Acquisition of net assets of Buffalo Packaging		
less working capital thereof .....	315,974	—
Increase in investment in and advances to other companies .....	2,464,371	331,140
Dividends paid or payable .....	531,456	531,354
Other .....	60,354	59,894
	<u>14,615,346</u>	<u>13,278,379</u>
Increase in working capital .....	6,146,217	1,517,284
Working capital at beginning of year .....	3,115,090	4,699,248
Working capital at end of period .....	<u>\$ 9,261,307</u>	<u>\$ 6,216,532</u>

In this report it was deemed appropriate to review in more detail Bow Valley's involvement in the Brae field because of the importance of this area to the Company.

## HISTORY

Bow Valley's participation in the Brae field originated in June 1970 when the Department of Energy of the U.K. Government awarded Licence No. P.108 to Syracuse Oils Limited and its partners during the third round of bids in the U.K. North Sea. Syracuse subsequently amalgamated with Bow Valley in April 1971.

The offshore licence covers the 110,000 acres contained in Blocks 16/3 and 16/7 which are 165 miles northeast of Aberdeen in approximately 375 feet of water.

In the fourth round of bids, during March 1972, the Bow Valley group was awarded Licence No. P.222 covering the adjacent Block 16/2 which contains 53,000 acres.

Detailed seismic surveys conducted over Blocks 16/2, 16/3, and 16/7 early in 1974 confirmed the existence of drillable anomalies on all three blocks.

## DRILLING ACTIVITY

The first exploratory well commenced drilling in the fall of 1974 and within a few months an eight-well exploration and appraisal program will have been completed. A brief record of the wells is as follows:

- (1) 16/7-1 reached a total depth of 15,695 feet on February 17, 1975, and on May 5, 1975, it was announced that the well had flowed oil and gas from seven productive tests over the pay interval. The flows were at a combined rate of 22,000 barrels per day with a gas-oil ratio of 3,000 cubic feet per barrel in the lower part of the pay zone and 7,000 cubic feet in the top part of the zone from 500 feet of continuous gross oil and gas pay in an Upper Jurassic sandstone.
- (2) 16/7-2 was spudded on a separate structure 4.7 miles west of the Brae discovery on July 11, 1975. The well was drilled to fulfill the obligation to drill two exploratory wells on either of the two licences. The well reached a total depth of 7,997 feet and tested oil at a flow rate of 4,023 barrels per day from a Paleocene sandstone at a depth of approximately 6,000 feet. Gas was also tested at substantial rates from a separate sand in the Paleocene sequence.
- (3) 16/7-3 was drilled 3.7 miles southwest of the 16/7-1 Brae discovery well and on March 10, 1976, it was announced that the well had reached a total depth of 13,655 feet and had encountered 1,000 feet of continuous gross oil pay in an Upper Jurassic sandstone. Four production tests were taken over the pay interval and yielded a combined flow of 14,000 barrels of oil per day with a gas-oil ratio of 1,600 cubic feet per barrel.
- (4) 16/7-4, located to define the western edge of Brae, commenced drilling on July 4, 1976, 2.7 miles southwest of the 16/7-3 and was abandoned on October 8, 1976, after reaching a total depth of 12,977 feet. The well tested hydrocarbons in the Upper Jurassic but did not sustain flows during the tests.
- (5) 16/7-5 was drilled 6.7 miles north of 16/7-4 and on December 23, 1976 the well was abandoned at 13,147 feet. The 16/7-5 encountered non-commercial hydrocarbon shows in the Upper Jurassic and, similar to 16/7-4, helped establish the western limits of the field.

- (6) 16/7-6 was spudded on October 9, 1976, 1.9 miles south of the 16/7-3. The well has reached a total depth of 13,760 feet and is being tested.
- (7) 16/7-7 is 2.0 miles southwest of the 16/7-1 discovery well and was spudded on December 26, 1976.
- (8) 16/7-8 should commence drilling in February 1977 and will be 2.4 miles south of 16/7-6.

Upon the completion of these wells, a further appraisal and development program for the field will be formulated to help establish what initial production facilities will have to be ordered to ensure production from the field at the earliest possible date.

## PARTICIPATION INTEREST AND FINANCING

- (1) Bow Valley originally had a 35 percent interest in both Licence No. P.108 and Licence No. P.222. On September 18, 1975, the British National Oil Corporation exercised its option to acquire at cost for cash a 20 percent interest in Licence No. P.108 thereby reducing Bow Valley's interest in this licence to 28 percent. (Such an option does not exist on Licence No. P.222.)
- (2) On June 8, 1976, 50 percent of the area of Licence No. P.108 was also relinquished to the U.K. Government under the original terms of the license. A similar relinquishment will have to be made on Licence No. P.222 on or before March 15, 1978.
- (3) The first wells that were drilled in Block 16/7 indicated that the Brae field could be a large oil field and, furthermore, could require enormous development costs. As expenditures of this magnitude were well in excess of the resources of Bow Valley, it was decided to reduce the Company's interest in the Brae field in return for the non-recourse financing of Bow Valley's share of past and future exploration, appraisal, and development costs.
- (4) On May 28, 1976, it was announced that a letter of intent had been signed with Ashland Oil, Inc. providing for the acquisition of one-half of Bow Valley's 28 percent interest in Licence No. P.108 (Blocks 16/3 and 16/7) and one-half of Bow Valley's 35 percent interest in Licence No. P.222 (Block 16/2). Consideration would be a payment and non-recourse loan by Ashland to Bow Valley of \$15,000,000 and a non-recourse loan by Ashland to Bow Valley in an amount equal to Bow Valley's share of exploration, appraisal, and development costs, of the Brae field. Ashland would recover these loans, out of 70 percent of Bow Valley's share of future production income from Brae.
- (5) Ashland subsequently brought Ashland Oil Canada Limited and The Louisiana Land and Exploration Company in as partners. The complete project was subject to the preparation and execution of a definitive agreement, which was formally signed on January 13, 1977 with the approval in principle of the U.K. Department of Energy.
- (6) Closing, which is subject to fulfilment of certain conditions, is expected to occur on or before February 15, 1977. At that time Bow Valley will have completely recovered its investment, arranged non-recourse financing of its share of all future costs, and will have a substantial flow of income from the first day of production.